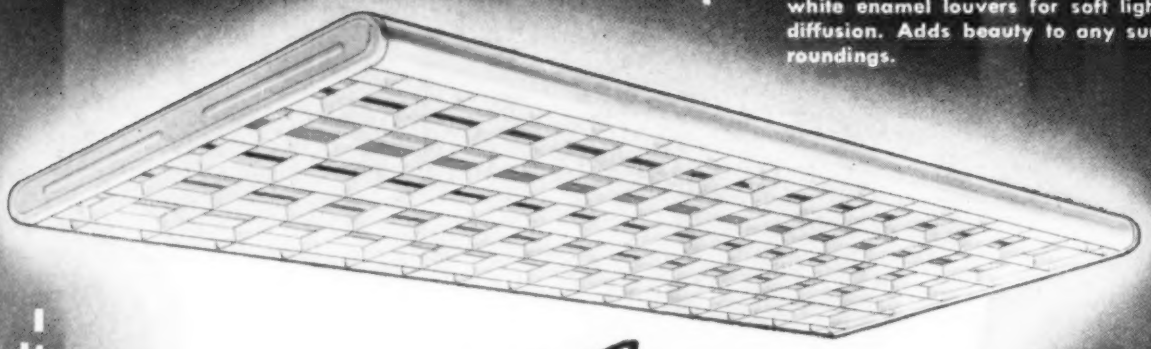
ELECTRICAL WHOLESALING

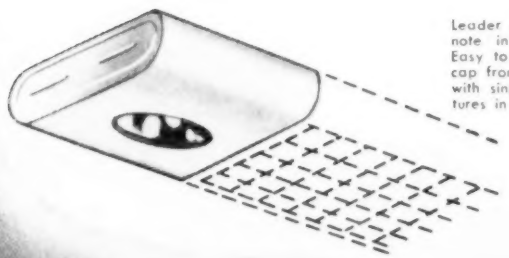


Leader Officer—VL-440. A wafer thin fluorescent fixture, with high gloss white enamel louvers for soft light diffusion. Adds beauty to any surroundings.

modern business chooses the Leader "OFFICER"

Banks, offices, department stores and exclusive shops, airport and railway stations—every type of commercial institution where beauty and better light are important—unanimously choose Leader's modern Officer unit. It's America's most versatile fixture—use it as a single unit or in continuous runs—mount it with stem and canopy or flush with ceilings. For every commercial need, choose the "Officer."

Leader's complete line of fluorescent fixtures is distributed only by better electrical wholesalers. There is a friendly Leader representative in your area.



Leader Adjustable Direclite—A new note in "spotlight" merchandising. Easy to install—simply remove end cap from any "Officer" fixture. Use with single fixture or between fixtures in a series.

LEADER ELECTRIC COMPANY

6127 NORTH BROADWAY • CHICAGO 40, ILLINOIS

WEST COAST FACTORY • 2040 LIVINGSTON STREET • OAKLAND 6, CALIF.

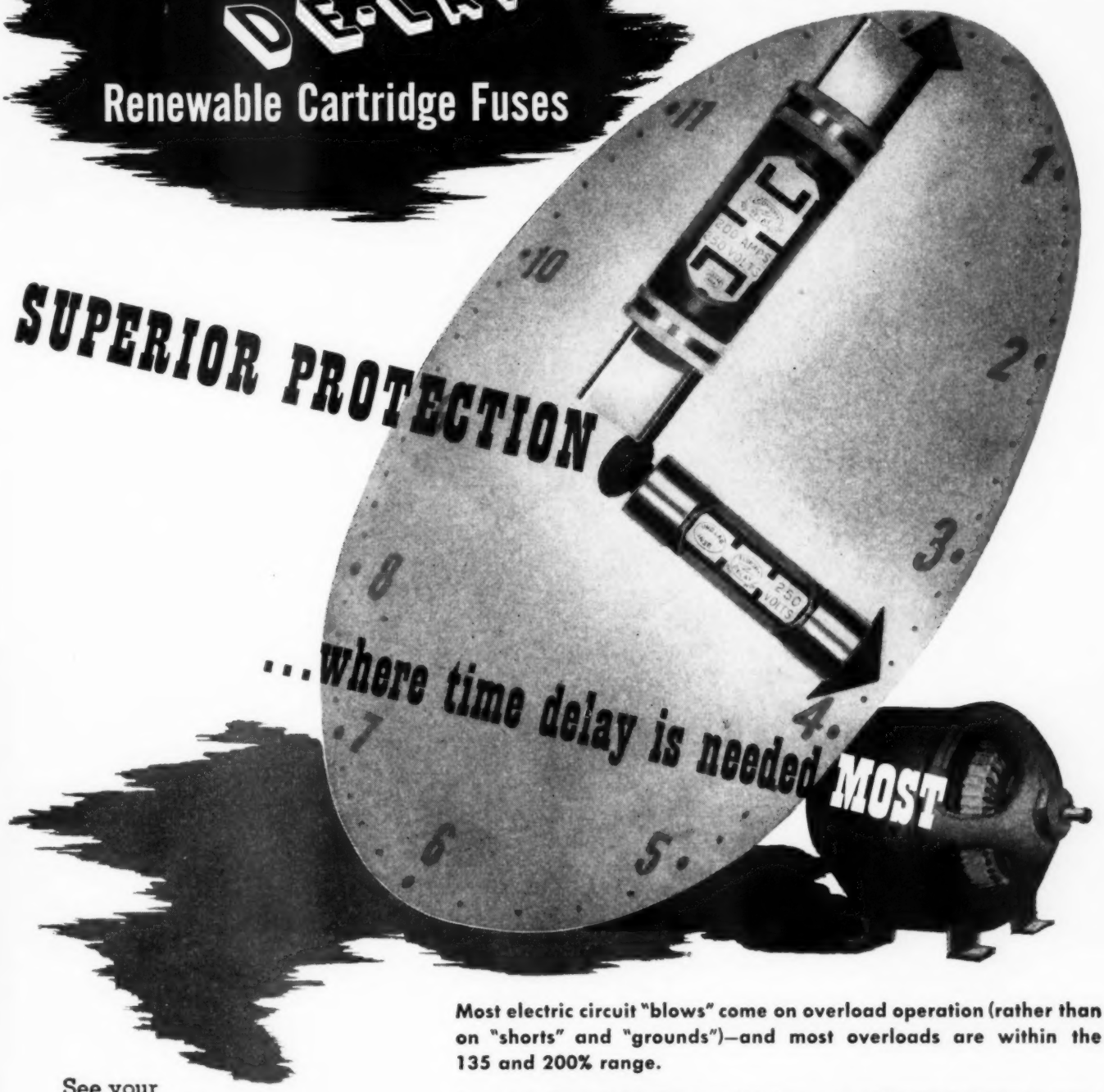
A STEP AHEAD LEADER ELECTRIC MFG. CORP.

ELECTRICAL WHOLESALERS . . .

These new Time-Delay Fuses are being advertised to men who specify and buy Fuses. Be prepared to offer your customers this "Superior Protection . where Time-Delay is needed most".

ECONOMY DE-LAY

Renewable Cartridge Fuses



See your
Electrical Wholesaler
for the new Economy
Time-Delay Fuses and Links;
he has them in stock.

SEND FOR NEW CATALOG

Most electric circuit "blows" come on overload operation (rather than on "shorts" and "grounds")—and most overloads are within the 135 and 200% range.

Economy Time-Delay Renewal Links are specifically designed to meet the above requirements; to give superior protection in these very ranges where time delay is most needed, i.e. 135 and 200% overloads.

Mechanically simple—It takes only a few moments to restore blown fuses to their original efficiency. Fully meet the requirements of the "Standard for Fuses".

2202

ECONOMY Fuse and Mfg Co.

Representatives in all Principal Cities

2717 Greenview Ave., Chicago 14, Illinois

PRICE REDUCED

Accepted by Council on Physical Medicine, American Medical Association.

NOW $9.95

WAS $15.00

G-E LAMPS

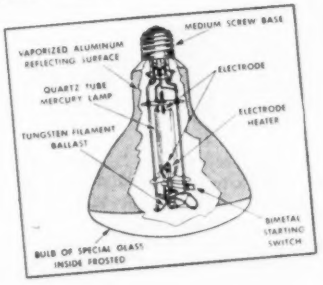
GENERAL ELECTRIC

on G-E Sunlamp!

More people than ever before will want it at this NEW LOW PRICE

TALK ABOUT TIMING! Right now, when people are fed up with winter's gloomy, gray weather—when everyone longs for summer sunshine—comes this irresistible offer. A genuine General Electric sunlamp for only $9.95—just reduced from $15.00!

IT'S A NATURAL! This popular lamp brings consumers three important benefits. First, like summer sunshine, it produces ultra-violet rays which supplement Vitamin D in the diet. Second, anyone who tans naturally will get that vacation look quickly and pleasantly with a General Electric sunlamp. Third, it's completely self-contained. Fits any AC home socket. And the current costs less than a penny per sun bath.



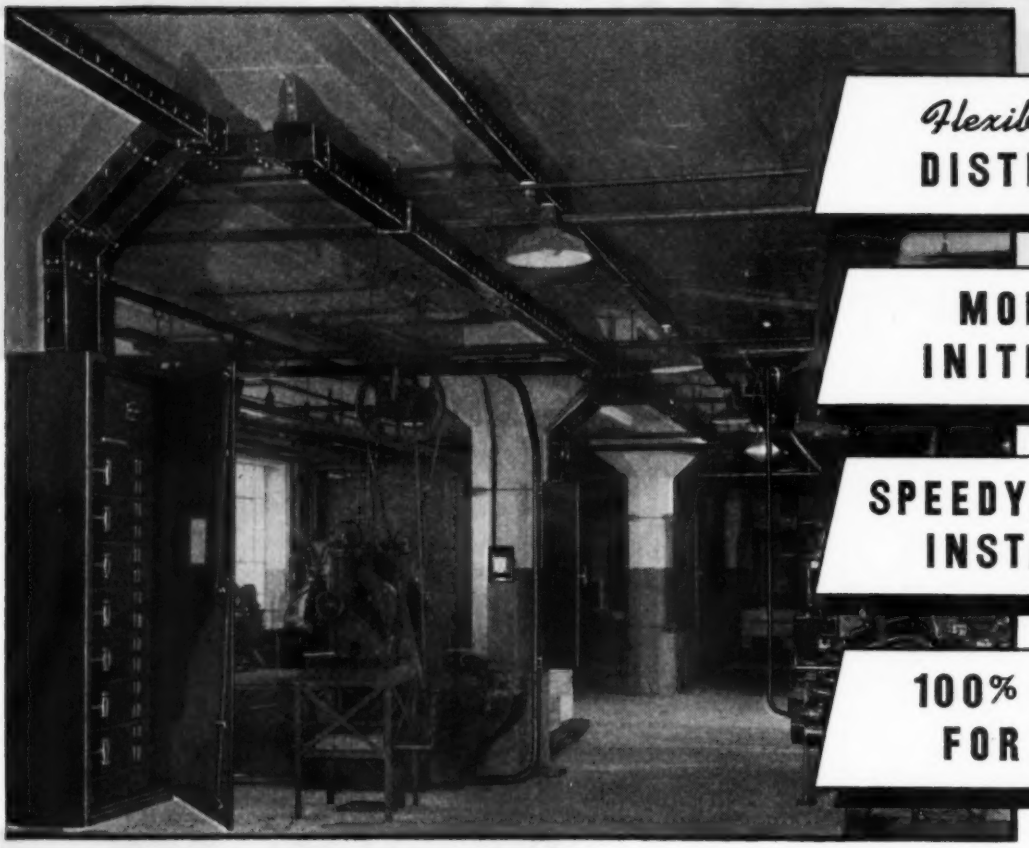
IT'S PRE-SOLD! Popular demand for G-E sunlamps is being stepped up by General Electric advertising in consumer magazines, newspapers and spot radio announcements.

IMMEDIATE DELIVERY! You can get plenty of these fast-selling G-E sunlamps on your regular lamp contract—*right now!* Don't let this profit opportunity slip through your fingers. Call your nearby G-E lamp office today. General Electric Co., Lamp Department, Nela Park, Cleveland 12, Ohio.

Feature this G-E HEAT LAMP bargain, too!

Seldom can your dealers offer so much comfort and convenience at such a low price! Winter chills and ills create dozens of uses for a General Electric infra-red heat lamp in every home—it soothes aches and pains, warms folks on chilly mornings, thaws pipes, dries shampooed hair, nail polish, paint, stockings, glue. Plenty of standard G-E heat lamps are available for prompt delivery. They'll move fast at only $1.25!

SQUARE-Duct *offers...*



Flexible **POWER DISTRIBUTION**

MODERATE INITIAL COST

SPEEDY, LOW-COST INSTALLATION

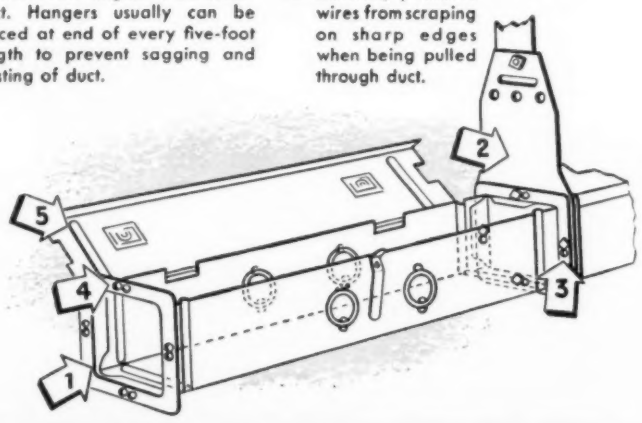
100% SALVAGE FOR RE-USE

Power where you want it—when you want it—without buying or moving long runs of conduit.

That's why so many plants use SQUARE-Duct to carry feeders, branch circuits, and other groups of conductors. SQUARE-Duct saves time and money every time a machine is moved or a new one added. Knockouts every three inches along the duct provide complete flexibility of machine location. Circuits are easily accessible for inspection or maintenance.

The initial cost of SQUARE-Duct is comparable to that of conduit wiring. Installation cost is substantially lower. For complete details . . . call your Square D Field Engineer, or write Square D Company, 6060 Rivard Street, Detroit 11, Michigan, for Bulletin 6000.

1. Drawn collar affords secure support for the duct and automatically aligns each length to prevent twisting. It also serves as a stable connection to the adjacent length equipped with a similar collar.
2. Notice how hanger fits securely between two lengths of SQUARE-Duct. Hangers usually can be placed at end of every five-foot length to prevent sagging and twisting of duct.
3. Hanger is bolted to both sides, top and bottom, affording even distribution of weight and offsetting any tendency to twist.
4. Double keyhole screw slots help in making alignment adjustments.
5. Emboss on cover, both sides and bottom, protects wires from scraping on sharp edges when being pulled through duct.



SQUARE D COMPANY

DETROIT • MILWAUKEE • LOS ANGELES

ELECTRICAL WHOLESALING

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Director of Circulation, Electrical Wholesaling
330 West 42nd Street, New York 18, N. Y.

Please change the address of my Electrical Wholesaling subscription.

Name _____

Old Address _____

New Address _____

New Company Connection _____

New Title or Position _____

Something Better Has Come to Light

A LINE YOU CAN PROFIT BY . . .
EQUIPMENT YOU CAN SELL!

PITTSBURGH PERMAFLECTOR
Presidential Series OF FLUORESCENT LUMINAIRES

"Pittsburgh" Permaflector

The Tyler FOUR LAMP UNIT

For surface or pendant mounting—individually or in continuous row. Egg-crate louver bottom hinged for easy maintenance. Two, three and four-lamp models.

WHEN you sell *Pittsburgh Permaflector* Lighting Equipment, you sell a line which has wide and favorable consumer acceptance . . . requires little sales effort . . . and gives you a good margin of profit.

DISTINCTIVE design and scientific engineering, backed by national advertising and good packaging, make *Pittsburgh Permaflector* Fluorescent and Incandescent Equipment easy to merchandise. Important selling advantages include flexibility of application, easy installation and simple maintenance of *every* unit.

LEADING electrical contractors and wholesalers have found it pays to feature *Pittsburgh Permaflector* Lighting Equipment for commercial, institutional and industrial applications. Get in touch with the *Permaflector* Engineer nearest you or write direct for the facts on this profit and prestige line.

There's a Permaflector for Every Purpose

NOW AVAILABLE . . .

PITTSBURGH PERMAFLECTOR CATALOG 46

This 124-page Catalog gives timely lighting data and illustrates the complete line of Permaflector Incandescent Lighting Equipment. We will gladly send you a copy on request.

PITTSBURGH Reflector Company

OLIVER BLDG., PITTSBURGH 22, PA.

MANUFACTURERS OF FLUORESCENT AND INCANDESCENT LIGHTING EQUIPMENT

Permaflector Lighting Engineers in All Principal Cities

WITH TRUMBULL (T) ELECTRIC

PANELBOARDS

For reasons of Safety, Appearance and minimum Space Occupancy, Trumbull recommends modern Column Type Panelboards which fit neatly within the web of an "H" beam in factory buildings.

The narrow type cabinet is installed at the conventional height with its extension trough carried up the beam nearly to the ceiling. At that point a pull-box is installed, making it unnecessary to carry long main and branch circuit conduit runs to the panel . . . an advantage in wiring time, material costs, and neatness.

For lighting and/or appliance branch circuit protection, Trumbull has standardized Column Type Panels to fit both 8" and 10" beams. Type M Multibreaker units provide for a maximum of 42 single pole or 20 double pole branch circuits, ranging from 15 to 50 amperes.

"On the Beam" with Trumbull Column Type is *good* Panelboard installation.

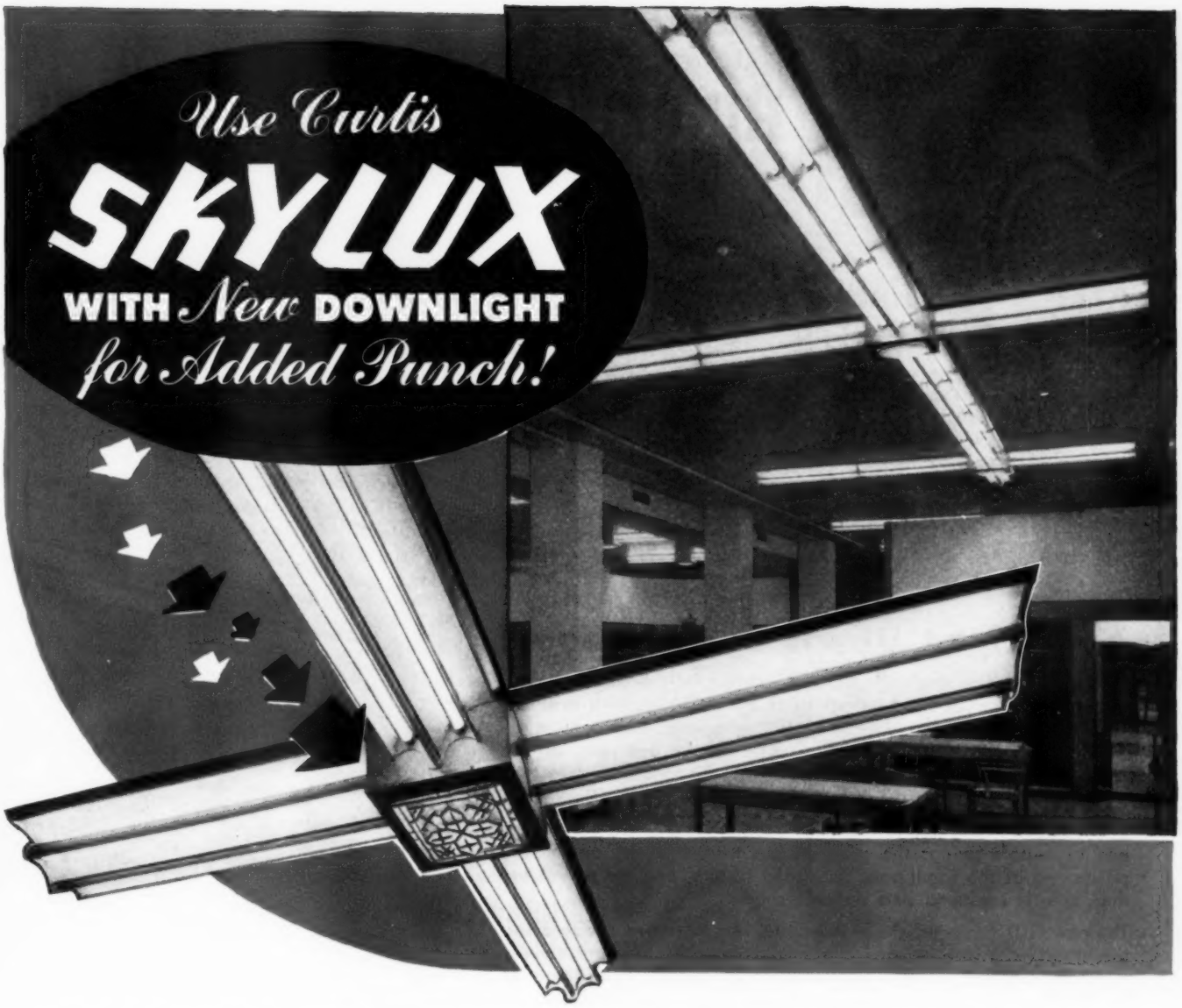
THE TRUMBULL ELECTRIC MANUFACTURING CO.
PLAINVILLE, CONNECTICUT
OTHER FACTORIES AT NORWOOD, OHIO • LOS ANGELES • SAN FRANCISCO • SEATTLE

Profit Heaven for '47
TOASTSWELL TOASTERS

You'll make real money this year with TOASTSWELL, for every housewife wants this famous toaster—"America's Best". It's the Super-Silent, Fully Automatic Toaster that makes *better*, more uniform toast, with a delicious sealed-in flavor. The toaster with Timax Control (a Silent Clock and a Thermostat). The toaster that's unsurpassed in beauty, performance and dependability.

TOASTSWELL Toasters are Nationally-Advertised, too—with TOASTSWELL Sandwich Toasters, Food Warmers and Waffle Bakers. Push easy-selling, profit-making TOASTSWELL!

THE TOASTSWELL COMPANY • 620 Tower Grove Ave. • St. Louis 10, Mo.



INTRODUCING INCANDESCENT SURFACE LUMINAIRE NO. 2230

Always a versatile and efficient unit, Skylux gains added selling as well as additional lighting punch when used with No. 2230 downlights.

This square incandescent surface luminaire can be used anywhere in a continuous line of Skylux to provide increased down lighting . . . over desks . . . over counters . . . over displays. No. 2230 is an ideal unit to match up transverse with longitudinal lines of Skylux . . . or it can be used to create interesting ceiling patterns such as squares, crosses, L's, T's, etc.

Twin Skylux units can be bolted to any or all of the four sides of the No. 2230. A decorative pattern hinged louver shields the 200 or 300-watt incandescent lamp. Maintenance and lamp replacement are easily and quickly accomplished.

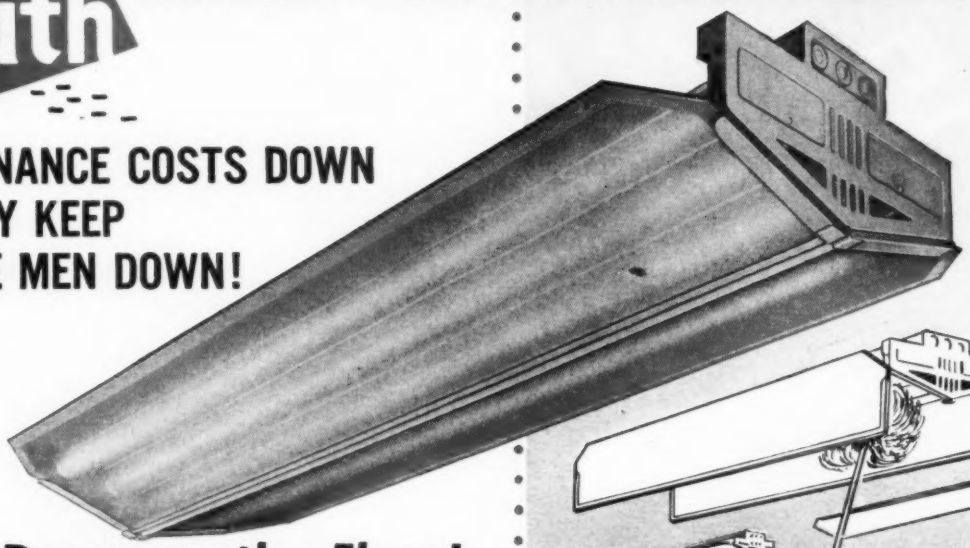
Write today for full details on No. 2230 to accompany your present data file on the Skylux.

CURTIS *Lighting*, INC.

6135 WEST 65TH STREET, CHICAGO 38, ILLINOIS

The New Guth HINGED GLASS ARISTOLITES

KEEP MAINTENANCE COSTS DOWN BECAUSE THEY KEEP MAINTENANCE MEN DOWN!



Yes, Right Down on the Floor!

Fluorescent Luminaires must be cleaned regularly because accumulated dirt can cut light output as much as 50%. With ordinary Fixtures, the cleaning operation is slow, awkward, time-consuming. Maintenance Men drag ladders all over the premises, disturb workers, waste time and energy climbing up and down.

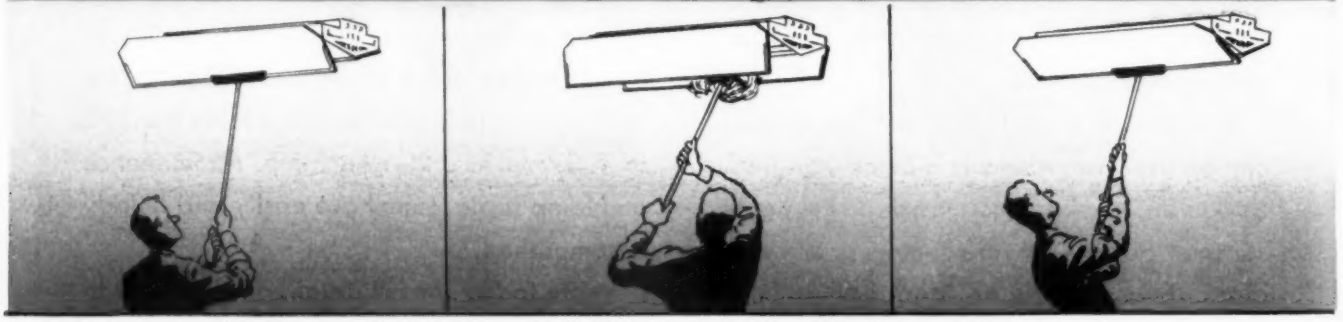
With the new GUTH Hinged Glass ARISTOLITE*, the entire operation can be performed *from the floor!* A simple gripper on the end of a pole swings the glass panels free, a duster on the opposite end of the same pole cleans the Fixture, and the panels are then quickly replaced and securely seated.

The new GUTH Hinged Glass Aristolite, like its famed predecessor, the standard Aristolite, provides fine diffused Fluorescent illumination which makes for safe, comfortable, easy *seeing.* In addition the Hinged Aristolite provides safe, comfortable, easy *maintenance,* too!

It's the Fixture that's serviced in a minute . . . serviced RIGHT . . . right from the floor!

*Trade Mark Registered—Patents Pending

MINUTE-MAINTENANCE WITH THE NEW Guth HINGED GLASS ARISTOLITES



OUR 45th ANNIVERSARY YEAR

The glass panels are released and swing open on their hinges. A quick dusting restores lighting efficiency to the Fixture. The glass panels lift back and are seated in small metal flanges. For relamping, one trip up the ladder replaces the customary three or four. Less time . . . more safety!

Write today for full information that tells how the New Hinged Glass Aristolite can reduce maintenance time and costs.

THE EDWIN F. GUTH CO. • 2615 WASHINGTON AVE • ST. LOUIS 3, MO.

Guth *Leaders in* LIGHTING SINCE 1902

Lighting Panels that make your eyes light up

BullDog lighting panelboards combine efficiency with visual appeal to make your eyes light up in appreciation of smart styling and progressive engineering.

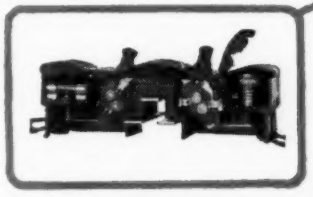
BULLDOG SUPERBA PANELBOARDS

BullDog's SUPERBA Panelboards meet the combined need for beauty and utility in offices, stores and commercial buildings.

Standard SUPERBA features interlocked fuse doors to provide an added safety factor, since fuses are always "dead" when accessible.

Modified SUPERBA incorporates all advantages of the Standard Model, except that it is intended for installations where *electricians* will replace fuses and, for that reason, does not require interlocked fuse doors.

Both offer the exclusive OMNI-bus feature, permitting balancing of loads without removing the cabinet door or trim, or disturbing wiring connections. Heavy-duty toggle switches, with quick-make and quick-break action, minimize arcing and burning to insure longer life and lower maintenance costs. Cartridge fuse ejectors are integral in the design.



Cutaway view of Standard SUPERBA phenolic unit featuring OMNI-Bus bars, rugged toggle switches, cartridge fuse ejectors—all adding to the appearance and utility of this lighting panel line.

BULLDOG ROCKER TYPE PANELBOARDS

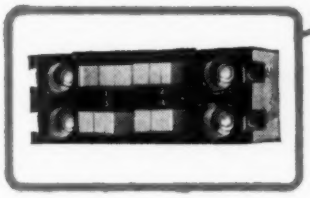
With BullDog ROCKER-TYPE Panelboards, ruggedness comes first.

These panelboards are designed particularly for factory use, where appearance is secondary but where circuits are apt to remain under load "around the clock."

Branch circuit units are sturdily designed of porcelain—the best insulating material known to the electrical industry. Porcelain is arc-resisting, non-carbonizing and non-tracking.

Switches are designed to reduce handle breakage. Quick-make and quick-break action, and friction-free knife edge bearings cut maintenance costs.

For full information on BullDog SUPERBA or ROCKER-TYPE lighting panelboards, call your BullDog Field Engineer. Or, write BullDog direct for folders.



Cutaway view of ROCKER-TYPE porcelain unit designed for rugged durability, maximum dielectric strength and heat resistance plus simplified switch mechanism with unbreakable rocker handles.

MEMO
TO WHOLESALERS
Here's an industrial magazine advertisement currently appearing in 15 publications and chock-full of valuable information for you and your salesmen.

ADEQUATE WIRING SERVES AND SAVES

BULLDOG

ELECTRIC PRODUCTS COMPANY

BullDog manufactures Vacu-Break Safety Switches—SafToFuse Panelboards—Superba and Rocker Type Lighting Panels—Switchboards—Circuit Master Breakers—"Lo-X" Feeder BUStribution DUCT—"Plug-in" Type BUStribution DUCT—Universal Trol-E-Duct for flexible lighting—Industrial Trol-E-Duct for portable tools, cranes, hoists.

Detroit 32, Mich. Field Offices In All Principal Cities. In Canada: BullDog Electric Products of Canada, Ltd., Toronto.

QUICK RELIEF for the BUILDING WIRE SHORTAGE

approved by N. E. C.

..here are some of the facts:

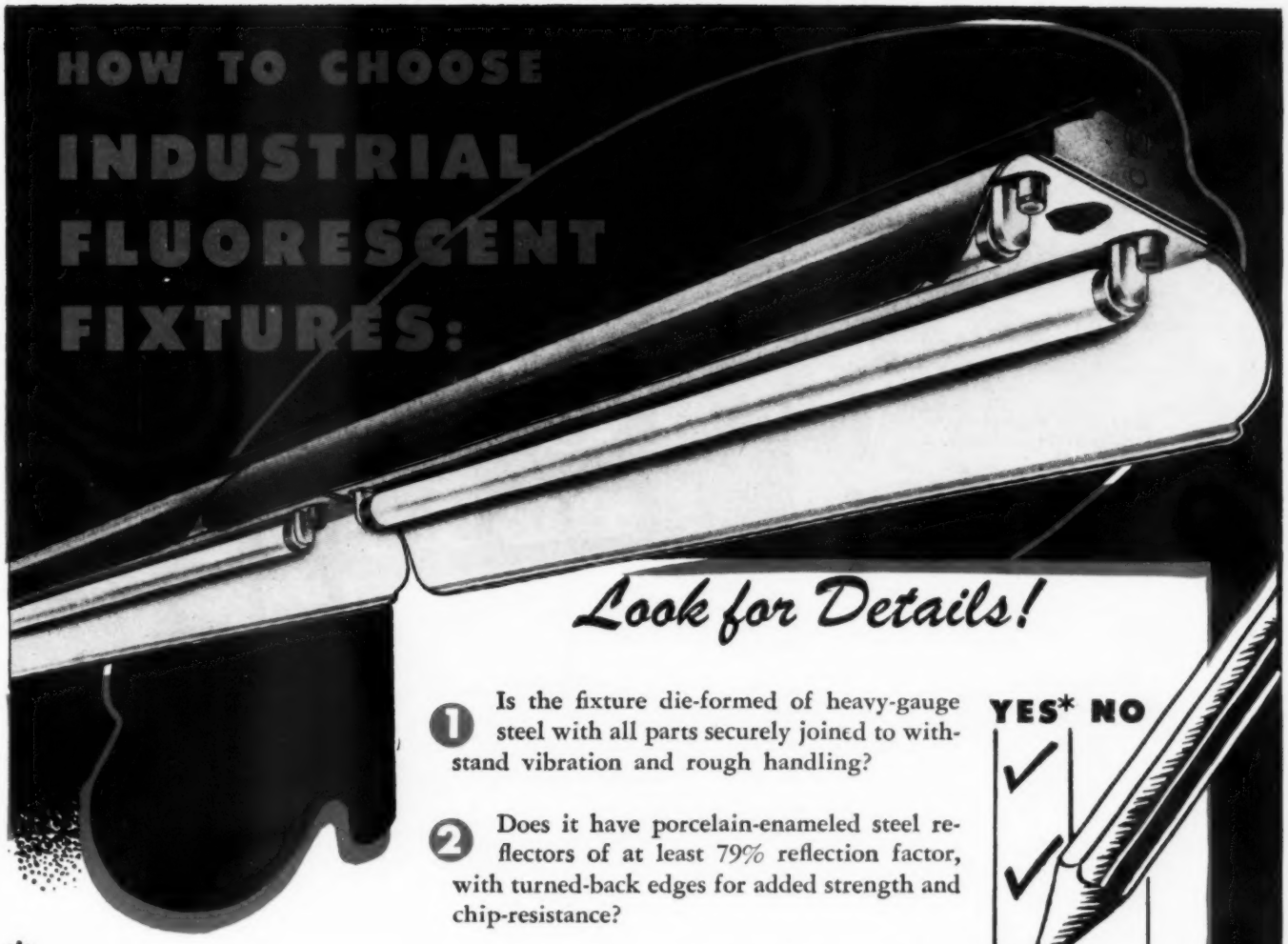
- Worldwide shortage of copper shows strong evidence of continuing through '47, maybe longer, thus prolonging present difficulties on deliveries of the heavier sizes of conductors.
- Because of its high conductivity and excellent record for durability, aluminum is the natural substitute.
- Current carrying capacity of aluminum Performite Building Wire, Type RH, equals that of copper Hazacode, Type R. The 16% difference in conductivity between copper and aluminum is compensated for by the temperature rating spread between the two types of insulation.
- Therefore no increase in conductor or conduit size is required except where runs are so long as to involve excessive voltage drop, or where substituting Type RH aluminum for Type RH copper.
- Aluminum Type RH Wire costs no more than copper Type R because the higher cost of the better grade Performite Type RH rubber is offset by the lower cost per 1000 feet of aluminum.
- The lighter weight of aluminum insulated conductors provides handling, transportation and installation advantages.
- Quick relief for the building wire shortage is now provided on sizes No. 6 Awg and larger Hazard Aluminum Performite Building Wire Type RH, where approved by local inspection authorities.

TO GET ALL THE FACTS, write for technical Bulletin H-407, illustrated above, which gives tables of capacities; comparative weights, data on characteristics; information for quick determination of voltage drop, conductor sizes, circuit length and currents for both aluminum and copper. Hazard Insulated Wire Works, Division of The Okonite Company, Wilkes-Barre, Pa.

HAZARD

insulated wires and cables for every electrical use 4983

HOW TO CHOOSE INDUSTRIAL FLUORESCENT FIXTURES:



Look for Details!

	YES*	NO
1 Is the fixture die-formed of heavy-gauge steel with all parts securely joined to withstand vibration and rough handling?	✓	
2 Does it have porcelain-enameled steel reflectors of at least 79% reflection factor, with turned-back edges for added strength and chip-resistance?	✓	
3 Do all construction details meet RLM standards? Does it bear the Underwriters' Label?	✓	
4 Are there plenty of knockouts for quick, economical installation in any manner—surface, suspension, unit or continuous?		
5 Is it designed for easy maintenance? Can starters be replaced without disturbing lamps? Can reflectors be quickly removed and replaced without tools?		
6 Is it engineered to distribute maximum glareless light evenly on the working plane—as proved by actual distribution curves?		

*

"YES" MEANS DAY-LINE

You'll find the proof in our Bulletin 30A. Send for it and compare.

Day-Brite Lighting, Inc., 5405 Bulwer Avenue, St. Louis 7, Mo.
Nationally distributed through leading electrical supply houses.

In Canada: address all inquiries to Amalgamated Electric Corp., Ltd., Toronto 6, Ontario.

290

IT'S EASY TO SEE WHEN IT'S

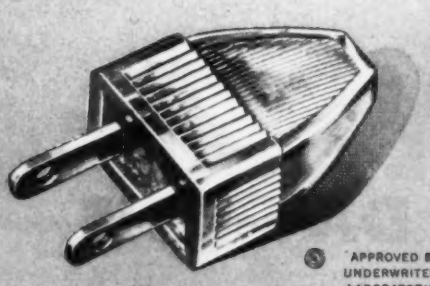
DAY-BRITE *Lighting*

STRIKING NEW NITE-T-LITE COUNTER DISPLAY MAKES SALES AUTOMATICALLY

Place this colorful new display, with its 24 Nite-T-Lites, in a busy customer-traffic spot. It works like magic, making sales without time or effort on your part.

Encore!

more GLOW for more sales and profits as Littelfuse scores again with a better NITE-T-LITE*



APPROVED BY UNDERWRITERS' LABORATORIES

Sales quickly climbed to the 3,350,000 mark when Nite-T-Lite first was introduced. Now, the new improved version of this amazing neon-glow light heads for even greater popularity. Its glow is bigger, and better diffused. An attractive etch-effect design conceals the element, and prevents glare.

Approved by Underwriters' Laboratories, and leading safety authorities, Nite-T-Lite operates for up to six months for a penny. Just plug it into any 110 to 125 volt AC or DC wall plug or receptacle and it burns continuously for up to a year. Nite-T-Lite's friendly glow safely guides family and guests in darkened halls, bathrooms, bedrooms, and all through the house.

Order a supply today and cash in as Nite-T-Lite catches its second sales-wind and records another smashing merchandising success.

* REG. U. S. PAT. OFF.—PAT. NO. 144877

LITTELFUSE FIRST IN CIRCUIT PROTECTION **Incorporated**

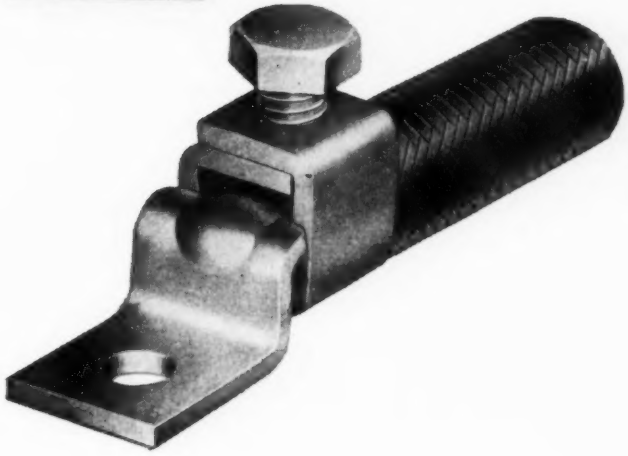
4773 E. RAVENSWOOD CHICAGO 40, U. S. A.

FUSES, MOUNTINGS AND ACCESSORIES • CIRCUIT BREAKERS • SWITCHES • NITE-T-LITE • SWITCH-LITE • IGNITION-FRITZ • NEON INDICATORS

ANNOUNCING

THE NEW T&B ENGINEERED "LUG-IT"*

For Sale Only Through T&B Electrical Wholesalers



THE "IT" in this newly styled T&B Lug is a combination of several attractive built-in features. You can see at a glance that this sturdy bronze Lug is a streamlined smoothie. Designed in four sizes, the "Lug-It" takes on all comers, solid or stranded wire #14 to 4/0, each connector taking a variety of wire sizes.

FOR SECURITY, the seat of the body is serrated to insure good contact and high pull-out value. The tongue, also serrated, travels through the body to form direct contact of wire to tongue. Double thickness at the screw head insures double strength and locking action. Approved by Underwriters Laboratories.

FOR ECONOMY, the design of the "Lug-It" enables your customer to use a wide variety of tongue shapes with the same body.

FOR EASY INSTALLATION, your customer simply tightens the one husky screw with his screw driver or pliers.

FOR EASY IDENTIFICATION, the body of each "Lug-It" clearly shows the wire sizes to use, the catalog number.

FOR FLEXIBILITY, you can sell to manufacturers the bodies separately for assembly to their equipment as a "built-in" unit.

And, as we said before, this better-than-ever "Lug-It" is sold only through you T&B Electrical Wholesalers.

*Pat. Applied For.

The Thomas & Betts Co.
INCORPORATED
MANUFACTURERS OF ELECTRICAL FITTINGS SINCE 1898
ELIZABETH 1, NEW JERSEY
In Canada: Thomas & Betts Ltd. Montreal

8 *reasons why you should specify*

WIRE AND CABLE INSULATION MADE FROM

GEON *plastics*

for industrial, domestic, manufacturing and utilities wiring

Resistance to ozone, wear, sunlight, water, chemicals, and most other normally destructive factors

14 colors including NEMA standards

More conductors in a given space

Excellent electrical properties

Thin coating of insulation

Ease of handling

Easy stripping

Light weight

Be sure to specify wire or cable insulated with GEON in order to get *all* these advantages. Or, for information regarding special applications please write Department K-3, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ont.

B. F. Goodrich Chemical Company

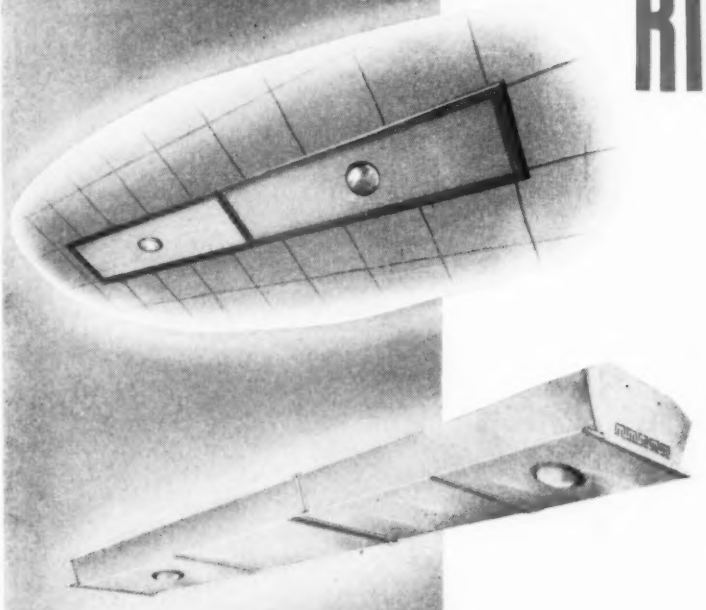
A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • KRISTON thermosetting resins • GOOD-RITE brand chemicals

All-bright

DUAL LIGHTING FOR DYNAMIC DISPLAY

RIGHT SPOT UNITS



The Floodlight or Spotlight an Integral Part of the Unit

ALL-BRIGHT high "Lights" the 1947 electrical industry with the new RSU dual luminaire. RSU is a space-utilizing unit designed for dynamic display with incandescent floodlight or spotlight and for efficient illumination with modern fluorescent lighting.

(Illustrated are an 8 foot RECESSED RSU and a 10 foot SURFACE MOUNTED RSU)

To glamourize with fluorescent light, to feature merchandise in dramatic floodlight, to achieve dynamic display — install ALL-BRIGHT'S new dual luminaire, RIGHT SPOT UNITS.

SEND FOR ILLUSTRATED FOLDER

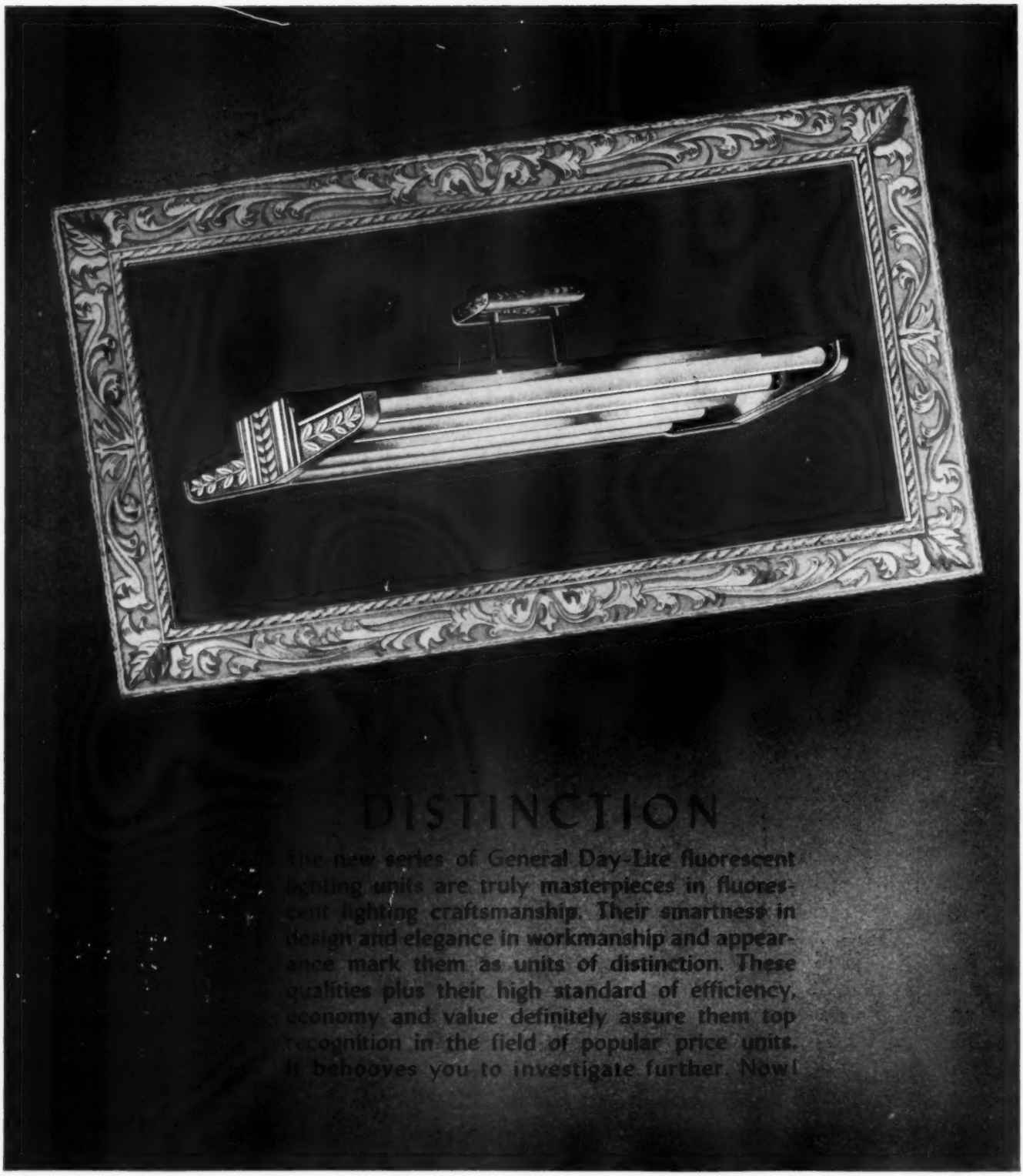
All-bright ELECTRIC PRODUCTS COMPANY

3917-25 North Kedzie Avenue Chicago 18, Illinois

LIVES RIGHT WITH All-bright

Wired and Fabricated A. F. of L.
Union Made I.B.E.W.

Copyright 1947



DISTINCTION

The new series of General Day-Lite fluorescent lighting units are truly masterpieces in fluorescent lighting craftsmanship. Their smartness in design and elegance in workmanship and appearance mark them as units of distinction. These qualities plus their high standard of efficiency, economy and value definitely assure them top recognition in the field of popular price units. It behooves you to investigate further. Now!

GDL

General DAY-LITE COMPANY

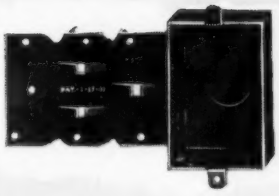
Manufacturers FLUORESCENT LIGHTING Fixtures

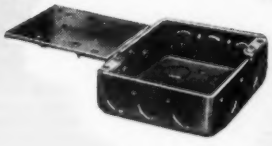
Phone: NORRISTOWN 7500 NORRISTOWN PA.

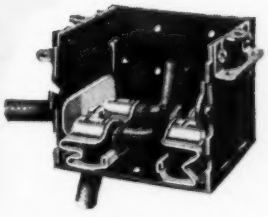
GDL

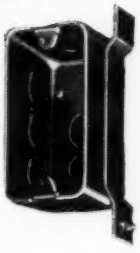
You Can Always Rely on RACO!

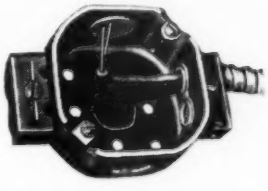
RACO—
Switch Boxes
Outlet Boxes











• Electrical wholesalers and their salesmen the country over know that they "Can Always Rely on Raco." They know that 34 years' engineering experience backs up this quality line.

Get acquainted today with Raco All-Steel Products. You, too, will find that it's the *dependable* line, the *uniform* line, the *clean* line—no ragged or rough edges; attractively finished and packed in cartons.

Remember our slogan—it's *your* assurance of a better line of steel switch and outlet boxes—a complete family of products that you and your salesmen can sell with pride and profit—today—tomorrow—and for many years ahead.

ALL-STEEL EQUIPMENT, INC.
300 Kensington Avenue
Aurora, Illinois

★ *Many other types also available* — A BOX FOR EVERY NEED

A Complete Line of Switch and Outlet Boxes

ALL-STEEL PRODUCTS

ALL-STEEL EQUIPMENT, INC.

THIS ADVERTISING WORKS FOR YOU

CENTRAL SPANG CONDUIT
...PROVIDES LIFETIME PROTECTION!
EASY-TO-WORK Spang CW and Spang Lapweld . . . the finest, full standard weight types of pipe made . . . are used to make Central Rigid Steel Conduit. That's why it has strong walls, full weight and good fatigue resistance. These qualities are your assurance that Central Rigid Steel Conduit will resist crushing and that it will withstand vibration.
Both the inside and outside of Central Rigid Steel Conduit are given a permanent, elastic black enameled or hot dipped galvanized and lacquered finish. Consequently, you can depend upon Central Rigid Steel Conduit to resist severe conditions of corrosion.
But that's not the whole story.
Central Rigid Steel Conduit has a carefully prepared, smooth inside surface which enables wire to be pulled through or withdrawn fast and easy. It has an accurate circular cross section which permits cutting of clean, true threads assuring quick make-up and tight joints. Central Rigid Steel Conduit meets all the National Electrical Code specifications for moisture, vapor and dust proof requirements in hazardous locations and occupancies. And every length is inspected by Underwriters' Laboratories and bears their label of approval
At times your distributor may not be able to supply you with all of the Central Steel Conduit you want. But keep in touch with him. He will make sure you get your share of the available supply.
There's Tested Strength in Every Length . . .
CENLACO (HOT DIPPED)
SPANG-CHALFANT

Spang advertising is an extra salesman for you. It makes regular calls on your customers and prospects . . . talks to people with buying power . . . forcefully presents the advantages of Central Rigid Steel Conduit . . . and every ad urges buyers to keep in touch with their Spang Central Rigid Steel Conduit Distributor.

You can depend on Spang to continue building a preference for its products, to maintain its high standard of quality and to do everything possible to produce all the conduit necessary to meet your customers' demands.

This is one of a series of Spang ads which are appearing regularly in: Electrical Contracting; Electrical Equipment; Electrical West and Electrical World.

FREE

To help you in your merchandising efforts, reprints of Spang ads are available upon request. Write for your supply today.

SPANG-CHALFANT

Division of The National Supply Company

General Sales Office: Grant Bldg., Pittsburgh 30, Pa.

District Offices and Sales Representatives in Principal Cities

TRY THIS Spring TONIC!

For PEPPING UP BUSINESS

Revere ELECTRIC MFG. CO. CHICAGO, U.S.A.

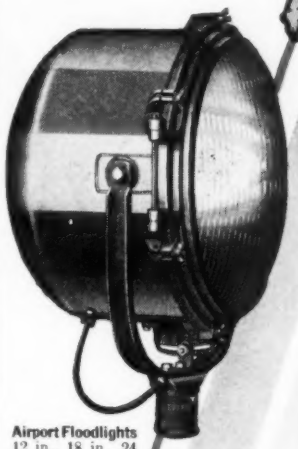
For SALES VOLUME

LIGHTING EQUIPMENT

HERE'S A TRIED and TESTED FORMULA that gets results—BUT QUICK! The ingredients are DESIGN, EXCLUSIVE FEATURES, EFFICIENCY, ADAPTABILITY and QUALITY. Try this Elixer to Stimulate Sales. See what it does to revive old prospects—how it puts the friendly gleam in the eye of cold prospects and makes them glow! Easy to take and quick to act.

Here's a line that stimulates the appetite for better—more efficient lighting—it's a panacea that will put you in the prosperity parade—because it's just what the doctor ordered for—

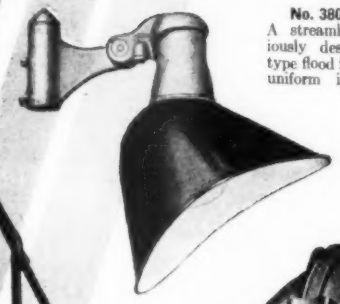
SERVICE STATION • SPORTS LIGHTING EQUIPMENT
AIRPORT • INDUSTRIAL • MARINE



Airport Floodlights
12 in., 18 in., 24 in. lens sizes. A masterpiece in design and construction.

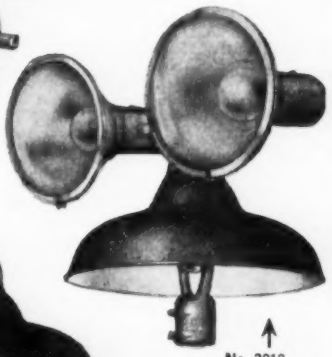
No. 4200 Enclosed Flood
750 - 1000 - 1500 Watt. Rotation feature with degree markings makes this a practical, easy to service unit for sports lighting.

No. 3080
Open Type Flood for lighting large areas. Alzak Aluminum reflectors. 300 to 1000 Watt. Telescopic arm provides simple and positive adjustment.

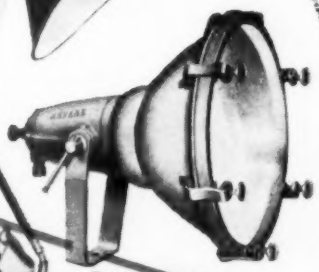


No. 3800 Eliptor
A streamlined ingeniously designed open type flood for effective, uniform illumination.

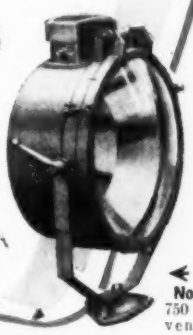
9-S 5452-L-ALT4
500 Watt enclosed (Navy) Type Flood. Rugged, concussion, vibration and exposure resistant.



The Famous Revere Hinged Floodlight Poles
Eliminates hazardous climbing to clean or service floodlights. 20, 24 and 30 foot mounting heights.



Enclosed Floods
A unique line in 150 to 1000 Watt sizes for any type of mounting. Also portable models.



No. 6500 Series
750 - 1000 Watt ventilated and weatherproof floodlight.

No. 3018 Convertible
Does a fine area lighting job plus spot-lighting.

No. 3018 Convertible
Weather-proof. Accommodates one, two or three top floods.

REVERE ELECTRIC MFG. CO.

6011 BROADWAY • CHICAGO 40, ILLINOIS

INDOOR AND OUTDOOR LIGHTING EQUIPMENT TO SERVE EVERY NEED

Your Favorite Brand

in a

BRAND NEW PACKAGE

HIGH TENSILE STRENGTH
LASTING TACKINESS

EXTRA ADHESION
NON-RAVELING

APPLETON RUBBER CO. INC.
BOSTON 30, MASS.

Sold exclusively through recognized wholesalers

IF YOU SELL FLUORESCENT LAMPS

YOU SHOULD SELL ACME FLUORESCENT BALLASTS

Quick-Start Lamp Ballast, for instant starting of fluorescent lamps. No starter required. Should be used only with Quick-Start lamps.

Selling Acme Electric ballasts goes hand in hand with the selling of fluorescent lamps. Just as fluorescent lamps wear out and must be replaced — so too, the ballast in some fixtures need replacement to provide the kind of quiet, brilliant performance and economy inherent in properly engineered fluorescent lighting.

Acme Electric engineers pioneered many of the important engineering features that helped make fluorescent lighting practical and popular in factories, stores, offices. Balanced secondaries provide for synchronized lighting of multiple lamp fixtures. Vacuum impregnated cores and coils, and compound filled cases minimize magnetic hum. Acme Electric ballasts control the line voltage to provide greater lamp brilliance, long life, better efficiency and performance.

A New Fluorescent Lamp Ballast Catalog providing detailed specifications, performance data and application suggestions is now available. Write for Bulletin FL 167.

FOR COLD CATHODE LIGHTING

ACME BALLASTS PROVIDE BETTER PERFORMANCE — LONGER LIFE

Standard performance proved designs for 25mm and 22mm 96" long tubes of brilliant light. Get full information about Cold Cathode lighting by writing for Bulletins 162 and 165.

ACME ELECTRIC CORPORATION

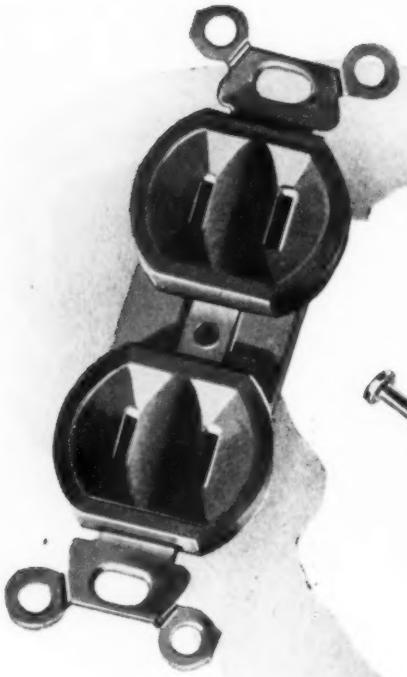
67 Water St. Cuba, N. Y.

Acme ACME Electric
TRANSFORMERS

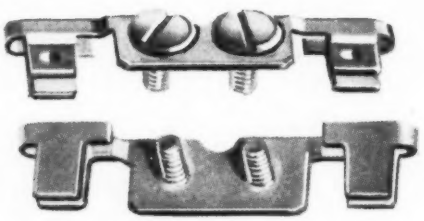
Acme Electric Manufactures Luminous Tube Transformers—Fluorescent Lamp Ballasts—Cold Cathode Lighting Transformers and Ballasts—Mercury Vapor Lighting Transformers—Radio and Television Transformers—Electronic Transformers—Door Bell, Chime, and Signalling Transformers—Safety Transformers—Voltage Regulating Transformers—Step Down Transformers—Control Transformers—Warp-Stop Transformers—Capacitor Transformers for Power Factor Correction—Air Cooled Power Transformers—Rectifiers.

IN CANADA, ACME ELECTRIC (CANADA) LTD.
822 Notre Dame W., Montreal 25, Que.

new... duplex outlet meets FEDERAL SPECIFICATIONS!



Large readily accessible binding screws will accommodate No. 10 wire.



The new Bryant No. 6122 Duplex Convenience Outlet is designed for residential installations—heavy all-molded Bakelite construction, double-sided contacts to grip cap blades securely and plaster ears to assure proper alignment. Large binding screws and a small, compact cup provide easy wiring and quick installation. Available in brown or ivory.

Double-sided contacts securely grip and prevent accidental disengagement of cap blades.

Easily detachable plaster ears provide proper wall alignment.

Finding slots speed cap insertion.

Yoke is firmly anchored in Bakelite housing.

BRYANT
SUPERIOR WIRING DEVICES

THE BRYANT ELECTRIC COMPANY
BRIDGEPORT 2, CONNECTICUT
NEW YORK · CHICAGO · LOS ANGELES

J-99800

In the miracle of ultraviolet . . . in the magic of Electronic Air Disinfection . . . is great promise for an America free from the dangers of air-borne bacteria.

Day by day . . . as DISINFECTAIRE Ultraviolet Germicidal Equipment spreads protection through more and more hospitals, schools, restaurants, theatres, offices, public buildings and homes . . . air-borne bacteria are reduced and public health increased.

Wherever you are . . . there's a destroyer of air-borne bacteria—a defender of health —an Art Metal field representative near you. He will be glad to show you how to protect your personnel against air-borne bacteria and viruses . . . your product against mold spores and fungi.

THE ART METAL COMPANY
Manufacturers of
Engineered Lighting and Ultraviolet Equipment
1814 EAST 40TH STREET • CLEVELAND 3, OHIO

Anthony Van Leeuwenhoek, 1632-1723, maker of the first microscope, discoverer of the sub-visible world of germs and spores, was the first of the scientists known as microbe hunters.

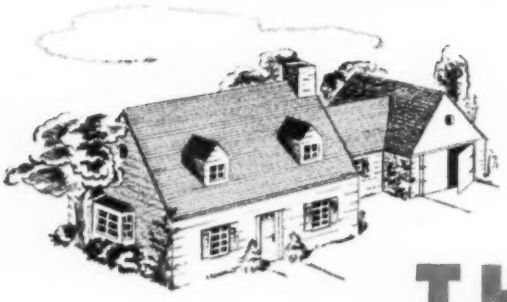
The Disinfectaire specialist, 1947, expert on Electronic Air Disinfection, advisor on problems in the control of air-borne contagion and contamination, is the modern danger fighter.

DISINFECT THE AIR YOU BREATHE WITH

DISINFECTAIRE

REG. U. S. PAT. OFF.

Ultraviolet Germicidal Equipment



for Residential Wiring

THE MODERN WAY IS THE ELECTRUNITE WAY

Modern ELECTRUNITE E.M.T. always goes in quickly and easily . . . no time is lost in setting-up bending and threading equipment . . . patented one-piece ELECTRUNITE Bender enables workers to accurately bend the tubing as they go.

ELECTRUNITE E.M.T.—THE *ORIGINAL* LIGHTWEIGHT RIGID RACEWAY— KEEPS INSTALLATION COSTS DOWN

There's positive, lasting safety in wiring that's protected by tough, strong Republic ELECTRUNITE E.M.T.— the modern streamlined wiring raceway. It puts an up-to-date wiring system—adequate for immediate needs plus margin for tomorrow's requirements—within the range of every home builder.

An ELECTRUNITE E.M.T. installation is low in cost because it goes in quickly, efficiently and economically. Modern threadless couplings and box connectors eliminate completely the muss, fuss and bother of old-fashioned thread cutting.

Remember that Republic ELECTRUNITE E.M.T. is the original lightweight rigid steel raceway...inspected by Underwriters' Laboratories . . . and approved by the National Electrical Code for exposed, concealed and concrete slab construction.

For complete details, see your nearest ELECTRUNITE Distributor.

REPUBLIC STEEL CORPORATION
STEEL AND TUBES DIVISION • CLEVELAND 8, OHIO
Export Department: Chrysler Building, New York 17, New York

REACHING YOUR CUSTOMERS

with the story of ELECTRUNITE E.M.T.'s many cost-saving advantages, is the primary purpose of this and similar advertisements which are appearing regularly in Electrical Contracting, Progressive Architecture and Electrical Equipment.

Republic REPUBLIC STEEL
ELECTRUNITE E.M.T.
REG. U.S. PAT. OFF.

LIGHTWEIGHT THREADLESS RIGID STEEL RACEWAY

All-Brite •• HINGE-MASTER*

- *Glass is Hinged to Drop Both Ways*
- *Fixture Body is Hinged for Accessibility*

* *Manufactured under exclusive License Patent No. 2284534*

In this new, amazing All-Brite Fixture... the dream of every electrician and maintenance man has come true. Changing tubes, starters, sockets, ballasts... or cleaning of fixtures is a pleasure. Installation and maintenance time are cut in less than half.

Available for 4 20-watt and 4 40-watt tubes with louvered or glass bottom... with *insta-start* or conventional ballast.

All these new features at no increase in price.

SOLD THROUGH RECOGNIZED JOBBERS ONLY

Approved by Underwriters Laboratories • Union Made

WRITE FOR CATALOG AND DISCOUNT SHEET

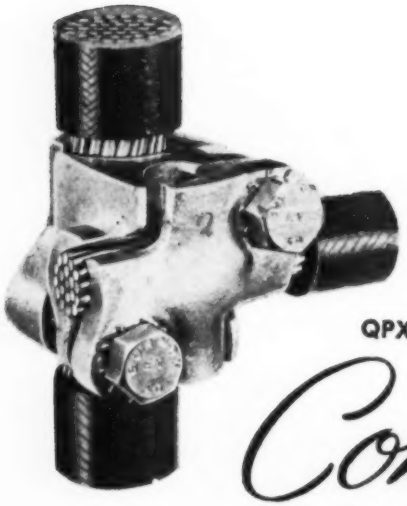
Manufactured by

FLUORESCENT FIXTURES OF CALIFORNIA

2779 FOLSOM STREET
SAN FRANCISCO 10, CALIF.

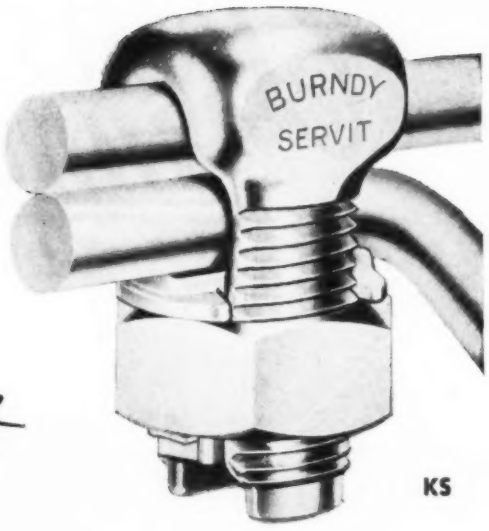
All-Brite
TESTED AND APPROVED

Manufacturers of
"ALL-BRITE" Fixtures



QPX

Connect with



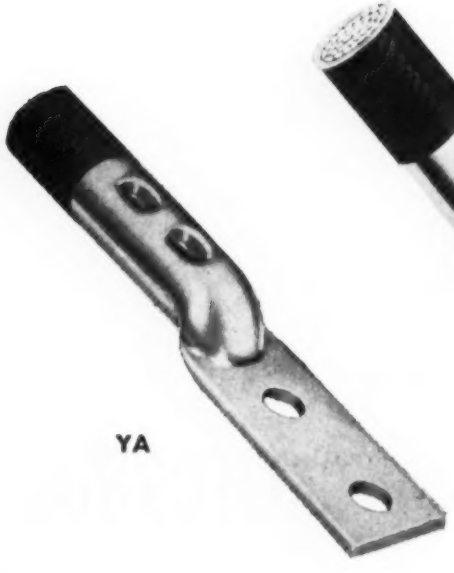
KS

BURNDY

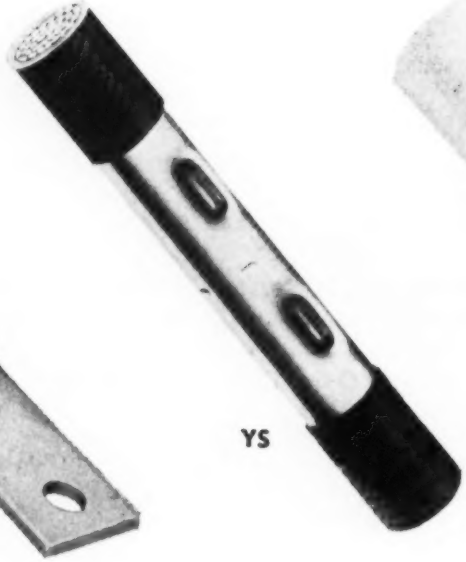
★ Because — you can always depend on the variety of Burndy connectors to provide quick, economical and highly efficient electrical connections.

This dependability stems from Burndy's long leadership in the electrical connector field . . . which has resulted in the acceptance of Burndy connectors for all construction and maintenance requirements. Remember too, deliveries are good at Burndy. Do you have the latest Burndy Catalog?

QT



YA



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QA

BURNDY · New York 54, N.Y.

IN CANADA: Canadian Line Materials, Limited, Toronto 13
FOREIGN: Philips Export Corporation, New York 17, N. Y.

SNARLED BATTERY INVENTORY FLOORING YOU?

Simplify your stock with one complete line –

"Eveready" Radio Batteries

IF YOU'RE tired of stocking all kinds of "Johnny-come-lately" radio batteries, just think of this:

"Eveready" radio batteries fit virtually *all makes* of sets! You carry less inventory, tie up less capital, and insure *more* customer satisfaction . . . because you are giving your customers the recognized *battery* brand! You don't have to buy anything else to get "Eveready" radio batteries—and they are *never* marketed under any other brand name, or private label!

Get out from under that complicated battery inventory. Standardize on famous "Eveready" radio batteries now!

EVEREADY
TRADE-MARKS
MINI-MAX
RADIO BATTERIES

The registered trade-marks "Eveready" and "Mini-Max" distinguish products of

NATIONAL CARBON COMPANY, INC.
30 East 42nd Street, New York 17, N. Y.
Unit of Union Carbide and Carbon Corporation

UCC

Go to a Radio Manufacturer for Radios — a Battery Manufacturer for Batteries!

"LVR" ENGINEERING makes it easier to sell ENGINEERED LIGHTING

✳ FOR BUSINESS OFFICES

Office of Western Grain Co., Birmingham—effectively lighted by Spero "LVR" fixtures

"LVR" MEETS THE 3 BASIC REQUIREMENTS FOR GOOD "ENGINEERED LIGHTING" . . .

1. **HIGH EFFICIENCY**—Light from the 40W tubes is shielded by evenly spaced louvres. Individual reflector for each tube—finished in "Plastox" white (86% reflection factor).

2. **LOW MAINTENANCE**—Starters accessible without disturbing tubes or hinged louvres. Relamping is done from top. Individual reflectors removable for each cleaning.

3. **SMART APPEARANCE**—End pieces, canopy and stems finished in pearl gray. Plastic side panels add to appearance and utility. Attractively styled.

Write for complete engineering data.

Spero also manufactures REFLECTORS, FLOODLIGHTS, VAPOR PROOF UNITS, and various MATERIALS FOR ELECTRICAL CONSTRUCTION. Write for Bulletin No. 10.

FACTS and FIGURES

FIXTURES—46 Spero "LVR-448" Fluorescent Luminaires.

MOUNTING—Pendant, 36″ stems. Continous rows, 9 ft. apart. Height from fixtures to floor, 9 ft.

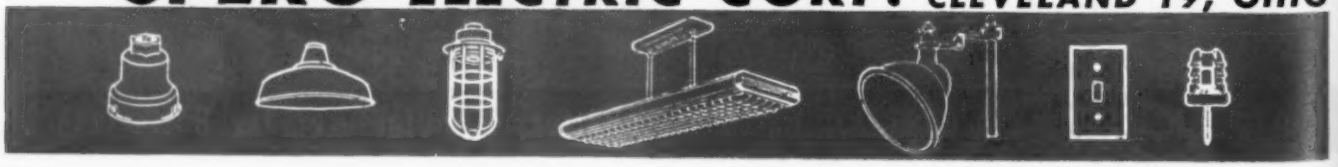
COLOR SCHEME—Ceilings white (80% reflection factor); walls light pastel green (72% reflection factor).

RESULT—60 footcandles of low brightness illumination of the intensity recommended for detailed visual tasks.

Installation made by Birmingham Armature Electric Company, fixtures sold through National Distributors, Inc.

✳ ***One of a series. Other advertisements show "LVR" engineered lighting in store interiors, institutions, etc.***

The SPERO ELECTRIC CORP. 18222 LANKEN AVE. CLEVELAND 19, OHIO



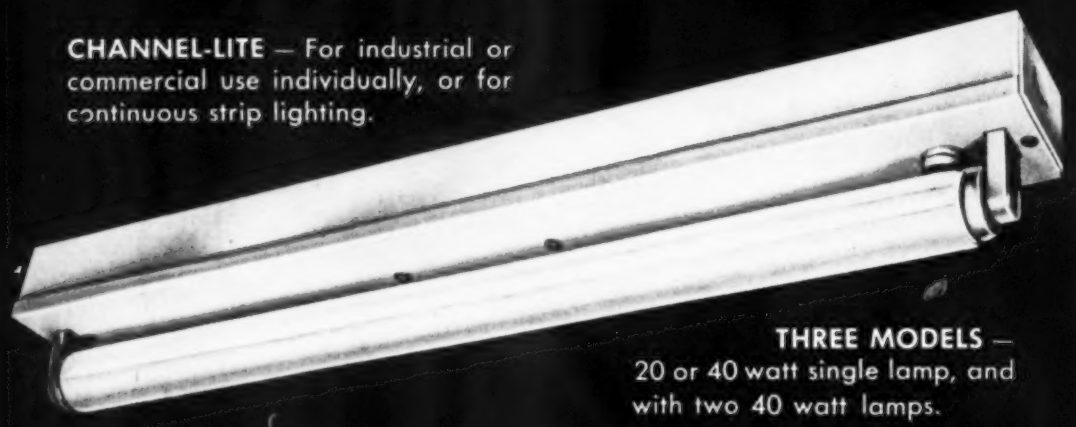
the Treasure Toaster!
● Valued as a fine possession by those who own it. High on the want-list of folks eager to have the best. And a treasure, too, for you who sell it. For "Toastmaster"* is America's top name in toasters. It will continue, in the most competitive of times, to be the easiest brand for you to sell . . . in the greatest volume.
TOASTMASTER Automatic Pop-Up Toasters
$18.75
Fair Trade Price
*"TOASTMASTER" is a registered trademark of McGraw Electric Co. Copr. 1947, TOASTMASTER PRODUCTS DIVISION, McGraw Electric Co., Elgin, Ill.

ANOTHER NAME FOR QUALITY IN FLUORESCENT LIGHTING —

electricraft

ANNOUNCES A NEW CHANNEL LIGHT OF ADVANCED DESIGN!

CHANNEL-LITE — For industrial or commercial use individually, or for continuous strip lighting.



THREE MODELS — 20 or 40 watt single lamp, and with two 40 watt lamps.

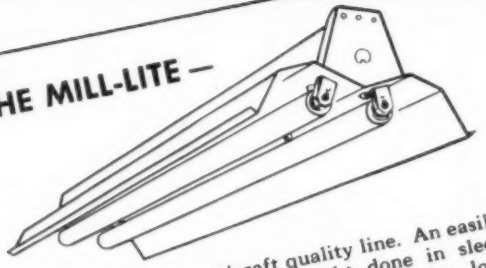
Look to Electricraft . . .

. . for prices that compare! All Electricraft products, including parts and accessories, are made in our own plant. This insures highest quality, allows control of costs and helps eliminate delayed deliveries due to parts shortages. That's why distributors and jobbers secure the highest type merchandise at prices that sell!

Depend on Electricraft . . .

. . for the best! The result of long, careful research, Electricraft products all feature shock and vibration proof lamp sockets and starter holders perfected by our own engineers. Add prestige to your entire line with these up-to-the-minute Electricraft "firsts". They offer greater sales and profits to you.

THE MILL-LITE —



Another of the Electricraft quality line. An easily installed, rugged industrial light done in sleek gray finish. Includes the fool-proof, spring lock lamp socket and starter holder.

WRITE, WIRE OR PHONE FOR SALES LITERATURE AND QUOTATIONS TODAY

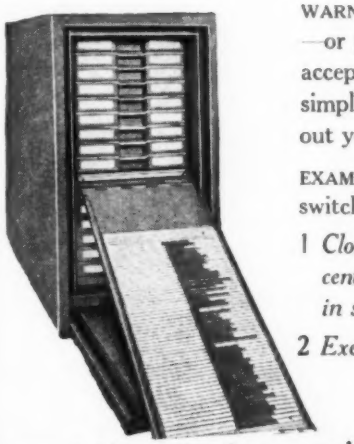
electricraft CORPORATION

FLUORESCENT LUMINAIRES OF ADVANCED DESIGN

32 CUSTOR STREET NEWARK 5 NEW JERSEY

© 1947 by Remington Rand, Inc.

Could cost-heavy systems be fleecing YOUR profits?



WARNING: Keep your eye on *controllable costs*—or profits may suffer plenty. Many a long-accepted expense can be sharply reduced by simplifying systems and procedures throughout your business.

EXAMPLE: Here's what one firm gained by switching to a Kardex-simplified *sales* control:

1 *Closer control over accounts . . . sharper concentration on profitable accounts, a reduction in selling expense on "deadwood".*

2 *Executive time saved by a* picture *comparison of facts that eliminates digging for information about quota, credit, customer follow-up.*

3 *Clerical time saved in preparing sales-to-quota figures. A new device computes percentages as an automatic by-product of Kardex signalling.*

Whether your costs are high in sales . . . purchasing . . . production . . . personnel . . . or inventory, RemingtonRand systems can slash your *controllable costs*. Call our local office for free 96-page systems analysis *Graph-A-Matic Management Control*. Or write Systems Division, 315 Fourth Ave., N Y 10.

Simplify and save ...with KARDEX

Remington Rand

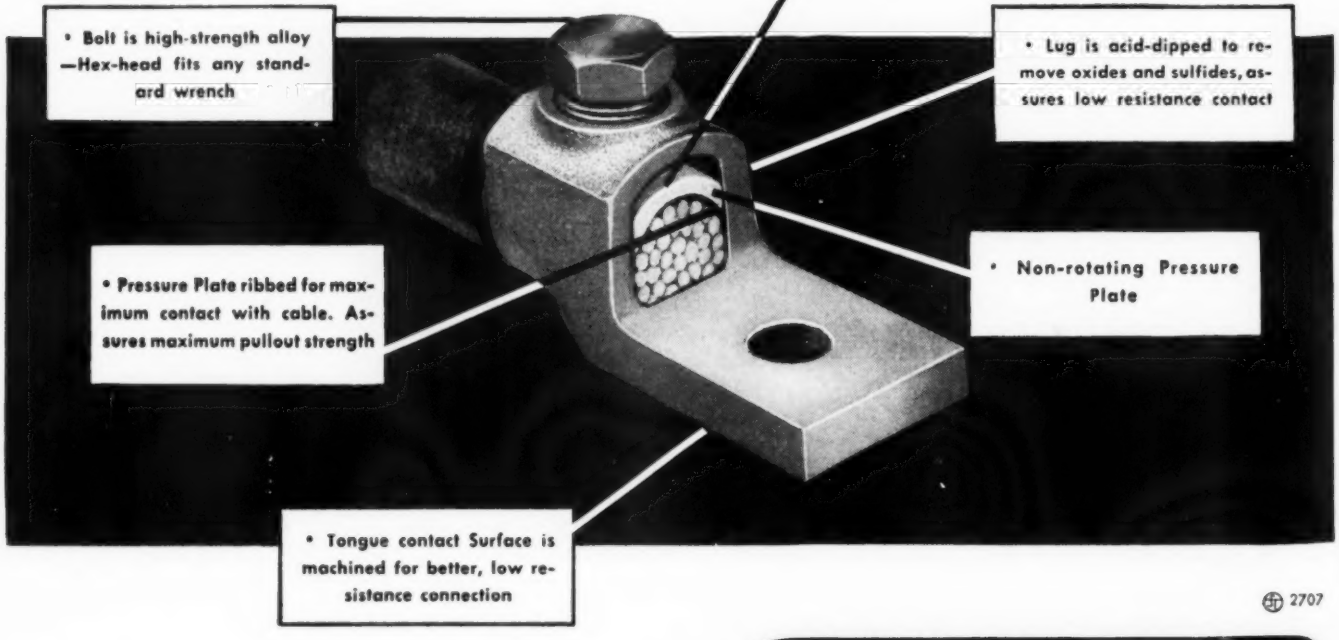
THE FIRST NAME IN BUSINESS SYSTEMS

No more loose connections!

O.Z. has this spring steel lock washer here

Only O. Z. has a tin plated Spring Steel Lock Washer in a solderless connector lug! Only O. Z. Connector Lugs can give you such positive insurance against the hazards of loose connections! Superior to washers of "special" alloys, the O. Z. Spring Steel Lock Washer holds its resiliency, exerts greater locking pressure and *maintains* that pressure. Once tight, always tight—if it's O. Z.

O. Z. Solderless Connectors set a standard of superior design. Check these *Additional* Features!


• Bolt is high-strength alloy —Hex-head fits any standard wrench
• Lug is acid-dipped to remove oxides and sulfides, assures low resistance contact
• Pressure Plate ribbed for maximum contact with cable. Assures maximum pullout strength
• Non-rotating Pressure Plate
• Tongue contact Surface is machined for better, low resistance connection

⊕ 2707

"They're O. K. if they're O. Z."

CONDUIT FITTINGS • CABLE TERMINATORS
CAST IRON BOXES • SOLDERLESS CONNECTORS
GROUNDING DEVICES • POWER CONNECTORS

O.Z. ELECTRICAL MANUFACTURING COMPANY
262 BOND STREET · BROOKLYN, 2 N. Y.

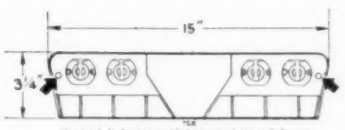
Firefly Super Hi-Lite installation in office of Clark Supply Company, 1330 W. Clybourn St., Milwaukee—Distributors of electrical equipment and air-conditioning units.

FIREFLY *Super* HI-LITE

SAVES TIME AND MONEY
. . . SIMPLE, ONE-MAN INSTALLATION

Ceiling-mounted Super Hi-Lites provide the advantage of "troffer" lighting with greater ease and economy of installation . . . a simple, one-man job. Each unit slips easily into a unique Z-type mount with a single motion. The fixtures are fastened together by two tie-in end bolts, instead of the usual one-bolt connection, giving extra strength and rigidity to the installation, making it easy to get perfect alignment of the fixtures as well as follow the natural contour of the ceiling. The simplicity of Firefly Super Hi-Lite ceiling mounting makes it easy to figure accurate installation costs . . . whether in single units, diagonal mounting or continuous rows.

The Firefly Super Hi-Lite is an unusually slim horizontal-type 4-light unit, only 3¼" deep. The scientific spacing of the bottom louvers gives the 45° angle cut-off from line of vision recommended by lighting authorities. The Super Hi-Lite is remarkably flexible. The quick-removable louvers may be added later to bare tube installations if desired. New Corning Alba-lite glass side panels are practically integral with louvers. Entire unit easy to keep clean.



Showing holes for tie-in end bolts. Lamps slip in easily from top.

The Super Hi-Lite is Underwriters Approved . . . union made, finished in quality double-baked, heat-resisting white enamel. Mountable from pendants or direct to ceiling. *Distributed exclusively through leading electrical wholesalers.* Write for literature.

KAHN MANUFACTURING CO., INC.
2051 N. 19th STREET • MILWAUKEE 5, WISCONSIN

THE *Firefly Line* OF FINER FLUORESCENT FIXTURES

An Open Letter to the Industry

Fluorescent Fabricators, organized in 1937, the first in the industry to manufacture both Fluorescent and "EZI" fixtures, have long protected their line and integrity against imitators. We hereby give notice that we shall take whatever steps are necessary to continue to protect the "EZI" — "EASY-EYE"—"EASY ON THE EYE" line and Fluorescent Fabricators' reputation, associated therewith. Accordingly, we request all producers in the industry to avoid imitating this line, trade mark, or firm name.

FLUORESCENT EZI *Fabricators*

3825 OLIVE ST. ST. LOUIS 8, MO.

DIVISION OF EZI CORPORATION

SURFACE PRINTED for Ready Identification

4T 600V SYNTHINOL
Approved for 60° C general purpose operation —exposed to air or oil.
4TW 600V MOISTURE RESISTANT GRADE
Approved for 60° C general purpose operation —and in wet locations.
4T 600V MACHINE TOOL WIRE
Approved for 60° C operation exposed to oil; 80° C operation exposed to air.

ROME SYNTHINOL*

UNDERWRITERS' APPROVED

ADEQUATE WIRING SERVES AND SAVES

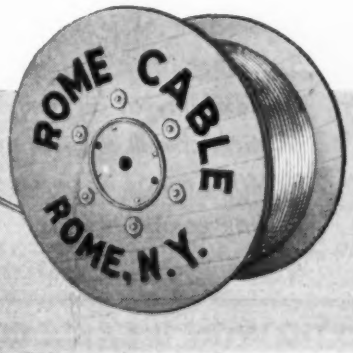
*Trademark Registered

You can rely on these surface markings for proper identification as you can always depend upon Rome Synthinol* for the many advantages provided by this superior thermoplastic insulation in its many applications. Write for our booklet No. 101. It's yours for the asking.

FROM BAR TO FINISHED WIRE

ROME CABLE CORPORATION

ROME • NEW YORK



ARE YOUR WIRE NEEDS *Standard or Super Special?*

No matter how you use it, wire or cable insulated with PLASTICON will serve you better because of one or more of PLASTICON'S ten basic characteristics.

The user of "special" wire benefits particularly because hitherto impossible specifications are being met to the letter in PLASTICON products developed to specific applications by the engineers of America's largest exclusive manufacturer of plastic wire and cable products.

For instance — one of America's leading manufacturers of hearing aids, who depends on PLASTICON for strength, flexibility, and exact coloring. Or the largest producers of heat regulating devices, who use a specially developed PLASTICON wire.

Wire or cable is better if it is plastic insulated, because of the superior adaptability of plastic. Plastic insulation is at its best if it's PLASTICON, the trade name of Plastic Wire & Cable Corporation. Write for free booklet of technical data on PLASTICON insulation, and explain your requirements, or let us tell you how we can meet them with PLASTICON.

PLASTICON

PLASTICON 10 WAYS BETTER

1. *Greater Dielectric strength.*
2. *Cannot fray, crack or rot.*
3. *Low moisture absorption.*
4. *Greater mechanical strength.*
5. *Higher abrasion resistance.*
6. *Flexibility at all temperatures.*
7. *High chemical resistance.*
8. *Wide range of permanent gem-like colors.*
9. *Non-combustible.*
10. *Lasting appearance.*

PLASTIC WIRE & CABLE CORPORATION, 406 East Main Street, Jewett City, Conn.

ARTCRAFT IS SHOW CASE LIGHTING AT ITS BEST

FINEST QUALITY

Fluorescent LIGHTING FIXTURES for SHOW CASES

Fabricated of the finest stainless steel - far more costly than ordinary metals - yet priced to meet competition. A lifetime rust proof finish. Supplied complete with all attaching parts. These parts are made of brass, plated to match, and designed to make all installations quick and easy.

Artcraft Fluorescent Show Case Lighting Fixtures come in all lengths to fit standard show cases, or made to specifications.

Made and wired by union labor. U.L. Approved.

ARTCRAFT FLUORESCENT CORP.

DESIGNERS & MFRS. OF MODERN LIGHTING FIXTURES

248-274 McKibbin Street

Brooklyn 6, N. Y.

Send for literature and price list

Rush your sample order now!

IMMEDIATE DELIVERY!

RESIDENTIAL & COMMERCIAL
INCANDESCENT-FLUORESCENT

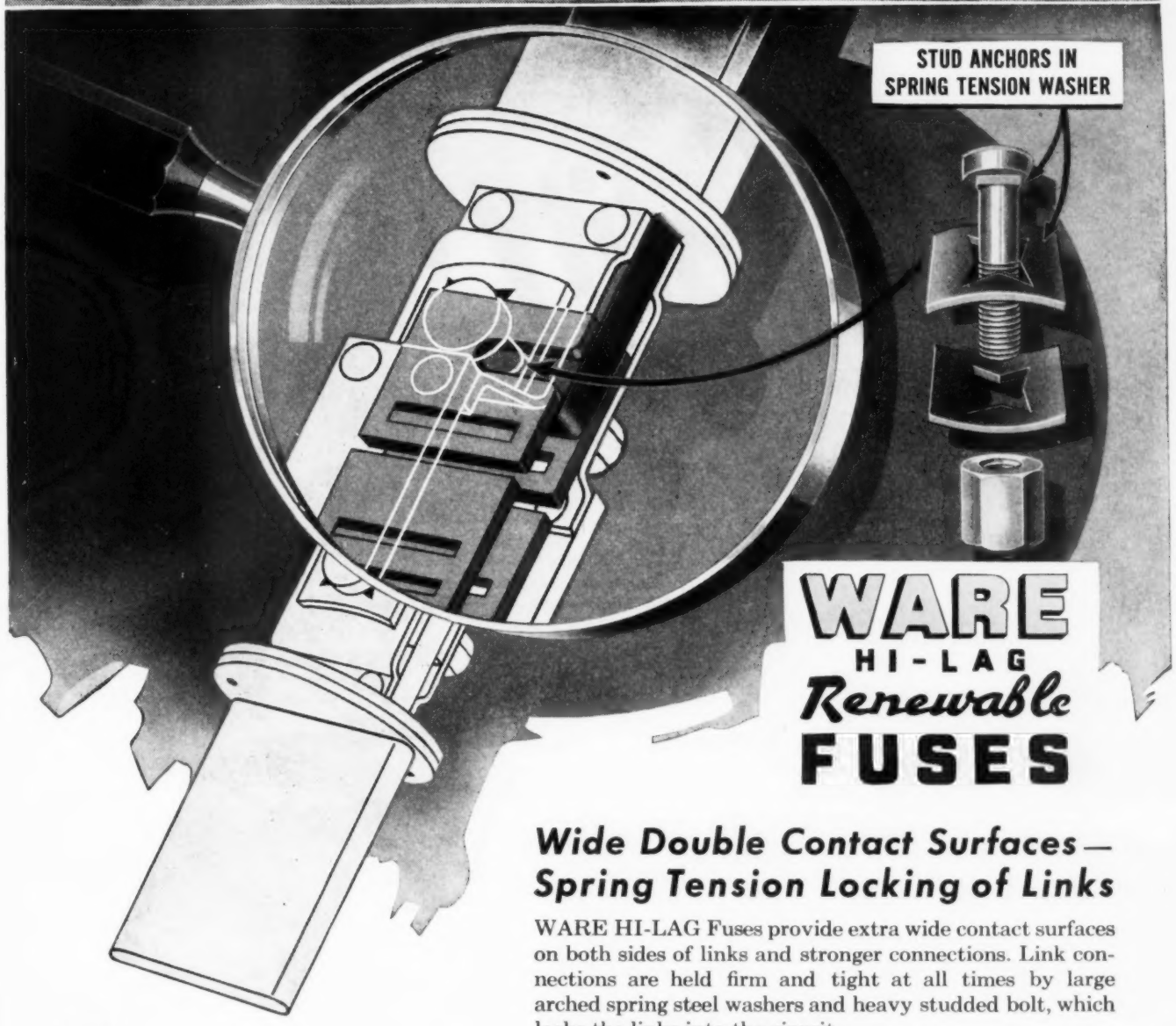
The KIRLIN Recessed LIGHTING CATALOG

ALL UNITS CARRY UND. LAB. LABELS UNION LABEL
SOLD ONLY THRU WHOLESALERS
WRITE FOR COMPLETE CATALOG

PROMPT DELIVERY

THE KIRLIN COMPANY
3435 E. JEFFERSON AVE., DETROIT 7, MICH.

LOOK TO WARE HI-LAG FUSE FOR PRODUCTION PROGRESS



WARE HI-LAG *Renewable* FUSES

Wide Double Contact Surfaces— Spring Tension Locking of Links

WARE HI-LAG Fuses provide extra wide contact surfaces on both sides of links and stronger connections. Link connections are held firm and tight at all times by large arched spring steel washers and heavy studded bolt, which locks the links into the circuit.

Expansion and contraction of metals during *Off* and *On* periods compress links. This fluctuation causes loose contacts and oxidization in other fuses, which finally result in excessive heating and unnecessary blows. WARE HI-LAG construction keeps contacts permanently tight, thus insuring low resistance and longer fuse life.

WARE HI-LAG has many exclusive features in addition to the above; including the Link Design-Double Bridge Knife-Blade Assembly-Gas Vents and Simplified Construction, only 3 Parts. That is why it is known as the World's Best and Coolest Operating Fuse made.

Start selling WARE HI-LAG Fuses today! Give your customers more satisfaction—greater economy with less fuse worries.

Write for Brochure giving details of all the COOL FACTS, sizes and prices.

KNIFE-BLADE
250 VOLTS
600 VOLTS
70 to 600 AMPS.

FERRULE
250 VOLTS
600 VOLTS
3 to 60 AMPS.

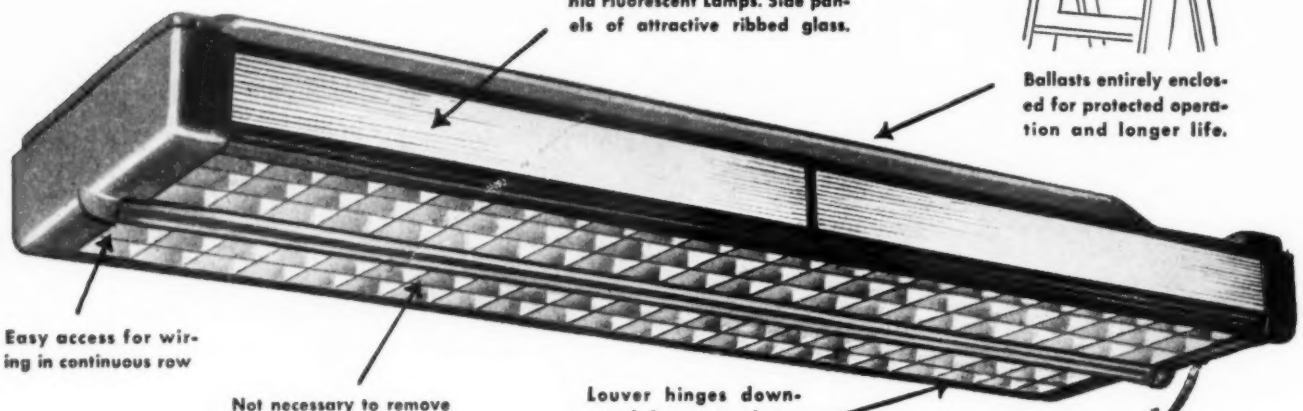
APPROVED BY UNDERWRITERS' LABORATORIES

WARE Brothers 4450 W. LAKE ST.·· CHICAGO 24, ILL.

YOU'LL WANT TO HANDLE THE FLUORESCENT FIXTURES THAT ARE

Tops in Quality!

(FIXTURES and LAMPS MADE BY SYLVANIA—quality controlled at every stage of production)


Complete with 4 40-watt Sylvania Fluorescent Lamps. Side panels of attractive ribbed glass.
Ballasts entirely enclosed for protected operation and longer life.
Easy access for wiring in continuous row
Not necessary to remove a single nut or screw to change starters or lamps.
Louver hinges downward for easy cleaning of louver and lamps.

TYPICAL of the complete Sylvania line of commercial fluorescent fixtures is the beautiful, modern, louvered CL-440 shown above. This model—as with all Sylvania fixtures—is *completely* guaranteed, assuring your customers the tops in engineering and quality. The CL-440 is ideal for stores, public buildings, offices.

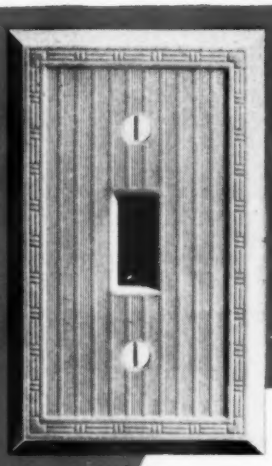
Here's styling that sells itself—and of great importance to your customers—ease of installation and maintenance that means quicker, simplified servicing. There's a quality Sylvania fixture for every commercial need. These fixtures build good will for wholesalers everywhere. *Sylvania Electric Products Inc., Salem, Massachusetts.*

REMEMBER ALL LAMPS IN SYLVANIA FIXTURES ARE SYLVANIA-MADE... THEREFORE OF THE HIGHEST QUALITY
These lamps have rugged qualities, brilliance and many refinements that far surpass demands of your most critical customers.

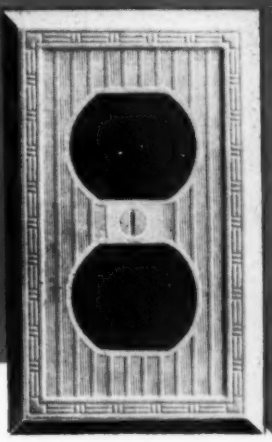
SYLVANIA ELECTRIC

"Fluorescent at its Finest!"

FOR STORE, FACTORY, OFFICE, HOME



No. 102
One Gang Toggle Plate
Brown $52 per 1000
Ivory $60 per 1000



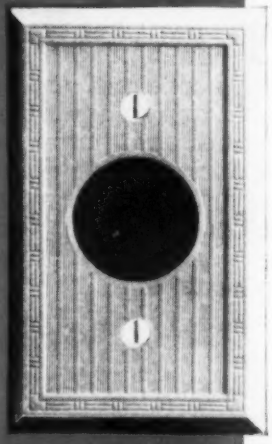
No. 104
Duplex Receptacle Plate
Brown $52 per 1000
Ivory $60 per 1000

IMMEDIATE SHIPMENTS

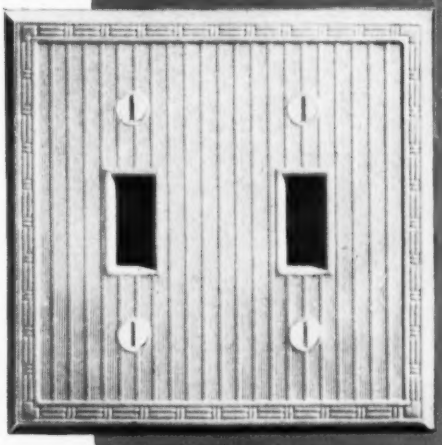
Unlimited Quantities

on Ivory, Brown, and Luminous

SWITCHPLATES



No. 106
Single Receptacle Plate
Brown $52 per 1000
Ivory $60 per 1000



No. 108
Two Gang Toggle Plate
Brown $104 per 1000
Ivory $120 per 1000

- Orders shipped the same day they are received.
- Each plate packaged in an individual envelope complete with screws.
- Prices quoted are for wholesale electrical supply houses and jobbers only. Orders accepted at these prices until June 1, 1947.

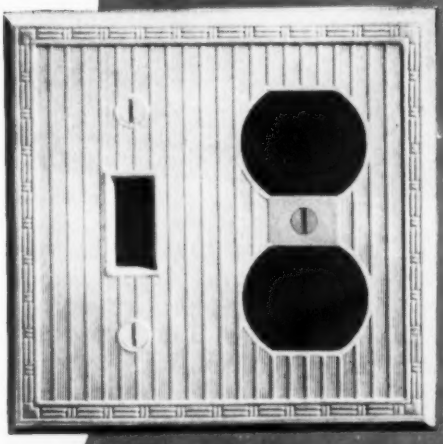
Samples sent upon request.

Terms: Less 2%, 10 days. F. O. B. Los Angeles

PLACE YOUR ORDER TODAY!

LUMINOUS SWITCHPLATES

Luminous switchplates (ivory colored) that glow in the dark are available now in all styles shown here. Numbers 102, 104, 106 $100.00 per thousand; Numbers 108 and 110 $200.00 per thousand.



No. 110
Combination One Gang Toggle and Duplex Receptacle Plate
Brown $104 per 1000
Ivory $120 per 1000

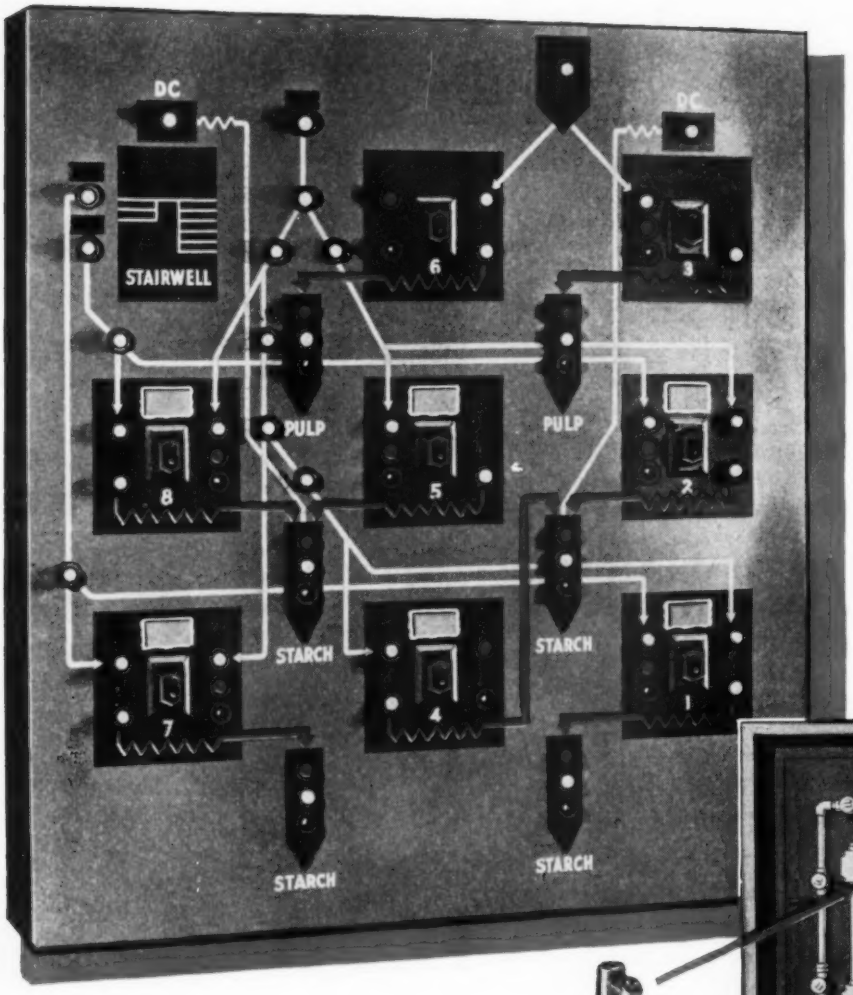
ALL-PLASTIC MANUFACTURING CO.

501 N. Figueroa Street • Phone TRinity 0851 • Los Angeles 12, California

Address all correspondence to P.O. Box 2135, Terminal Annex, Los Angeles 54, California

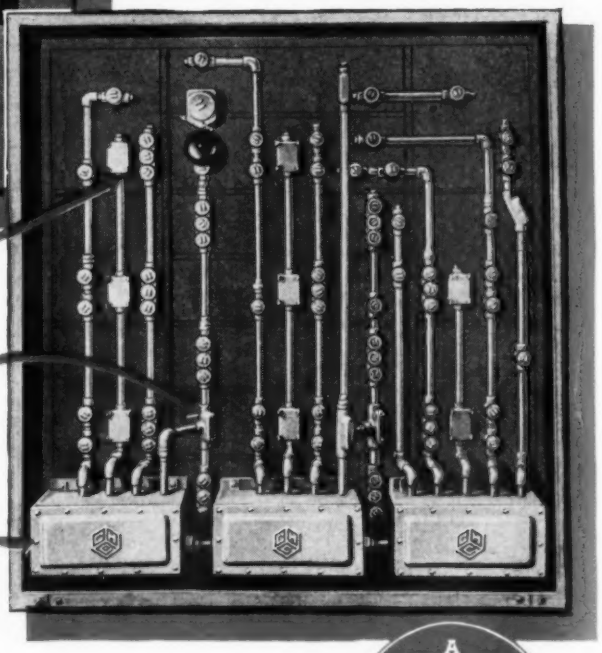
Central flow-line boards for the control of modern industrial processes

are easy to design with CROUSE-HINDS complete line of panel mounting *CONDULET equipment for hazardous locations



Crouse-Hinds panel mounting pilot lights and switches provide visual indication of process stages and instant control of processing or manufacturing equipment. The illustrations show front and back views of a flow-line control board in a starch plant where combustible dust creates a Class II (National Electrical Code) hazardous location.

* *CONDULETS are made only by CROUSE-HINDS*



The pilot lights and switches are dust-tight and explosion-proof and are designed for both Class I and Class II hazardous locations. A similar control board for use where flammable gases or vapors create a Class I hazardous location would only require substitution of explosion-proof junction Condulets and the addition of explosion-proof sealing Condulets, as indicated.

Write for additional information.

Type EYS Explosion-Proof Sealing Condulet

Type GUAT Explosion-Proof Junction Condulet

Type EJB Explosion-Proof Junction Condulet

A Nationwide Distribution Through Electrical Wholesalers

Our 50th Anniversary 1897 – 1947

CROUSE-HINDS COMPANY
Syracuse 1, N. Y.

Offices: Birmingham — Boston — Buffalo — Chicago — Cincinnati — Cleveland — Dallas — Denver — Detroit — Houston — Indianapolis — Kansas City — Los Angeles — Milwaukee — Minneapolis — New York — Philadelphia — Pittsburgh — Portland, Ore. — San Francisco — Seattle — St. Louis — Washington. *Resident Representatives:* Albany — Atlanta — Charlotte — New Orleans
CROUSE-HINDS COMPANY OF CANADA, LTD., *Main Office and Plant:* TORONTO, ONT.

CONDULETS · TRAFFIC SIGNALS · AIRPORT LIGHTING · FLOODLIGHTS

THIS POWERFUL ADVERTISING IS *SELLING*

GERMICIDAL

Rad-i-Air

ULTRAVIOLET EQUIPMENT

FOR YOU!

Sell This Great New Profitable Market!

FOR HUMAN PROTECTION

The sensational new RAD-I-AIR U.R.C. Conditioner is science's newest weapon against human disease! Provides germicidal ultraviolet energy at *maximum intensity* to kill deadly airborne germs, viruses and bacteria. Has proved its germicidal effectiveness again and again . . . in hospitals, schools, homes, offices, stores, factories, theatres, restaurants . . . wherever people congregate indoors.

FOR ANIMAL PROTECTION
FOR PRODUCT PROTECTION

RAD-I-AIR Conditioners are available for the protection of poultry and livestock against costly, profit-stealing diseases. In the field of product protection, RAD-I-AIR units guard against bacterial spoilage of perishables, such as meat, produce and other foods; protects product purity in processing operations; helps safeguard profits and build prestige and customer acceptance.

THERE'S A Rad-i-Air UNIT FOR EVERY NEED. . . .

HUNDREDS OF THOUSANDS OF *Rad-i-Air* PROSPECTS

Hotels · Schools · Hospitals · Restaurants · Theatres Institutions · Meat Markets · Packing Plants · Poultry Raisers and Processors · Dairy Plants · Chain Stores · The Entire Food Processing Industry

RAD-I-AIR has launched a smashing advertising campaign to help you sell hundreds of thousands of prospects this finer, more profitable Germicidal Ultraviolet Equipment. Over and over again, effective large-space ads are telling the RAD-I-AIR story to *your* potential customers in a dozen major fields that are in the market for large-volume purchases. This advertising will spark sales for you, will bring you new business, profitable, high-volume business.

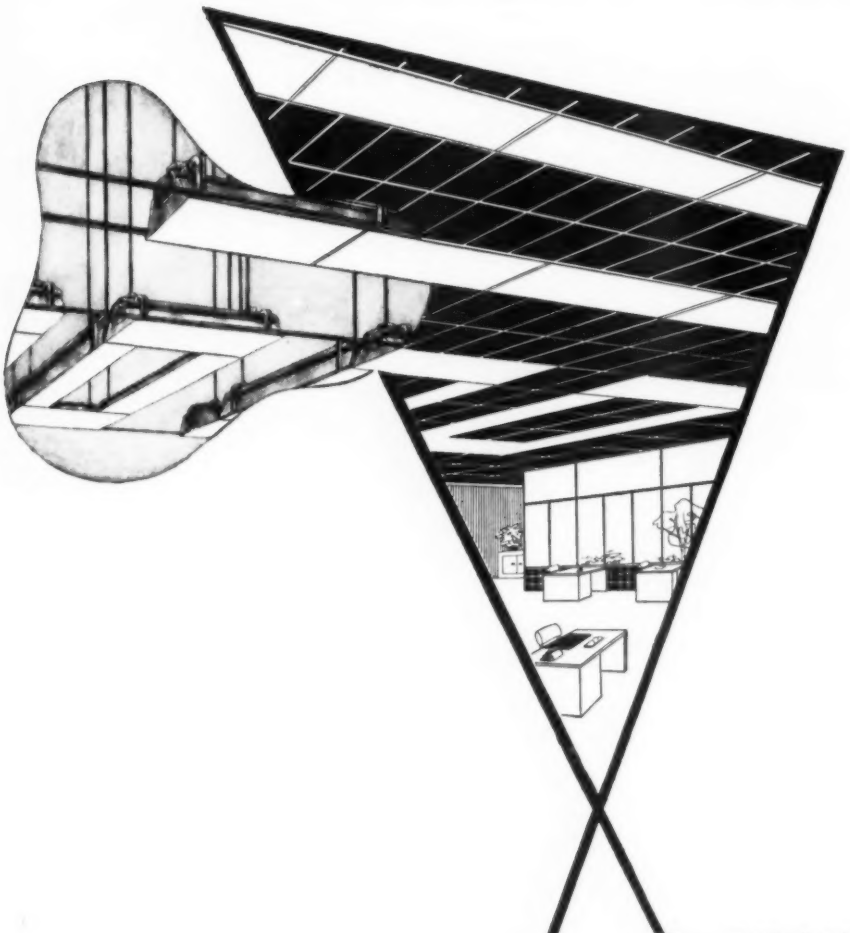
Get on the RAD-I-AIR bandwagon now! Get the selling details that will help you do a big job in this profitable new market that's easy to sell. Let RAD-I-AIR show you how to cash in on this new selling opportunity. Write for full information today!

LINE UP WITH Rad-i-Air

GET THE SELLING DETAILS NOW!

TRU-AIR ULTRAVIOLET PRODUCTS CO.
1019 N. Madison Avenue · Dept. 10-B-7
Los Angeles 27, California

(A Division of the Mitchell Manufacturing Co.)



Good lighting, plus ceilings unlimited ..one lighting system gives you both

CEILINGS UNLIMITED — a boundless new field for the use of light as a structural aid in interior design is the added benefit offered stores, offices, schools, factories and public buildings through the installation of MILLER FLUORESCENT TROFFER LIGHTING SYSTEMS.

THE MILLER CEILING FURRING HANGER (patented) — which supports structural ceiling and TROFFER lighting system — simplifies installation and makes possible a versatility of lighting applications to form any ceiling pattern desired — CEILINGS UNLIMITED.

More! Installation is simplified. Less than half usual number of supports needed from structural ceiling. Wiring costs cut up to 50%, and conduit and conduit fitting costs up to 80%.

Miller Lighting service is all-inclusive. Its 50 and 100 FOOT CANDLERS (Continuous Wireway Fluorescent Lighting Systems) have been established as standard for general factory lighting. And its Incandescent and Mercury Vapor reflector equipment have broad factory and commercial application.

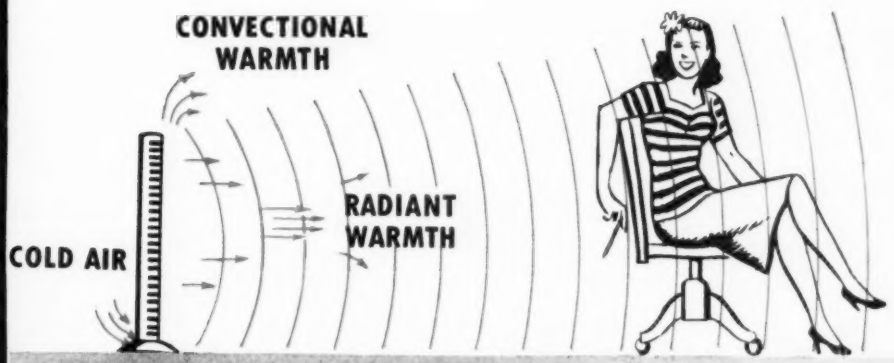
MILLER field engineers and distributors, conveniently located, are at your call.

THE MILLER COMPANY

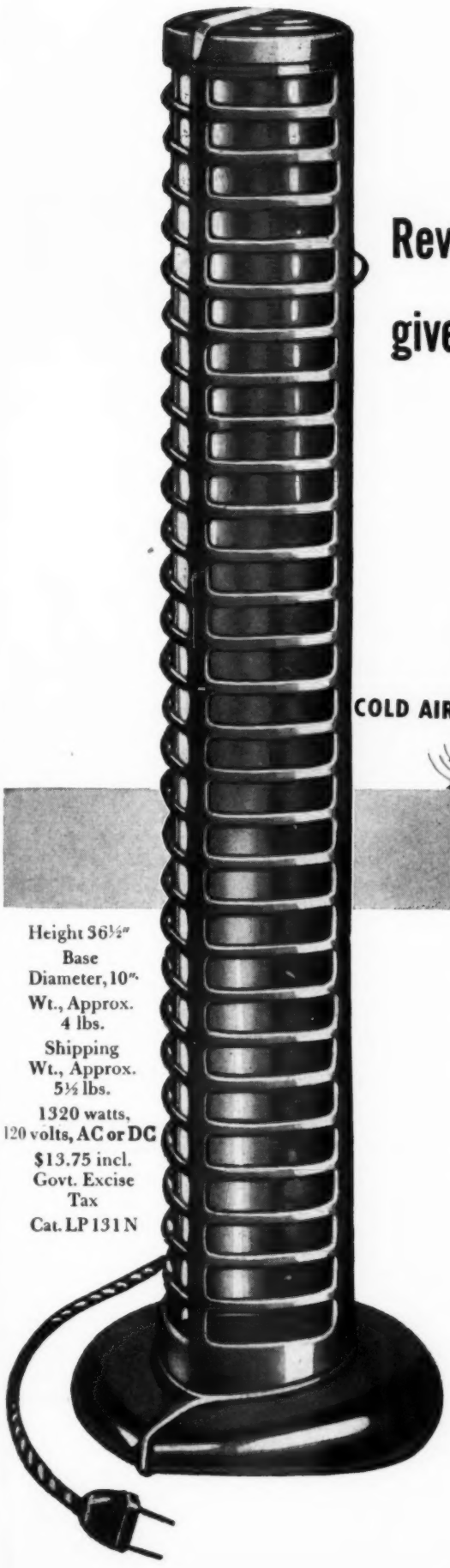
ILLUMINATING DIVISION, MERIDEN, CONNECTICUT

ILLUMINATING DIVISION: Fluorescent, Incandescent, Mercury Lighting Equipment. HEATING PRODUCTS DIVISION: Domestic Oil Burners and Liquid Fuel Devices. ROLLING MILL DIVISION: Phosphor Bronze and Brass in Sheets, Strips and Rolls.

Revolutionary design of Longfella' portable gives you *2 KINDS OF WARMTH*



HEAD-TO-HEELS RADIANT WARMTH
PLUS OVER-ALL CONVECTIONAL WARMTH



Height 36½"
Base Diameter, 10"
Wt., Approx. 4 lbs.
Shipping Wt., Approx. 5½ lbs.
1320 watts, 120 volts, AC or DC
$13.75 incl. Govt. Excise Tax
Cat. LP 131 N

Only the Thermador Longfella' offers *two kinds of warmth* . . . head-to-heels, infra-red, *radiant* warmth from its long, slender reflector—*plus* all-over-the-room, *convectional* warmth through its uniquely designed top.

No wonder, then, that the Longfella' is far more effective than the ordinary portable . . . *that watt for watt it is the most efficient auxiliary radiant heating unit ever designed.*

Greater efficiency is but half the story of the Longfella's long, slender revolutionary design. No other portable requires so little floor space—fits into *any* corner of *any* room. And no other portable's so easy to store—tucks away snugly in the smallest closet.

Every home and office needs at least one of these remarkable Longfella's . . . for quick, clean warmth in the bathroom—safe, anxiety-free warmth in the playroom—pure, electric warmth to banish cold spots everywhere.

For complete details, write Dept. EW-3.

THERMADOR
LONGFELLA'

"Seven Leagues Ahead"

Thermador Electrical Mfg. Co., 5119 District Blvd., Los Angeles 22

When you sell G-E Thermoplastic Building Wire you sell confidence too

Here are a few of the many outstanding features of

G-E THERMOPLASTIC

Building Wire

EASY TO INSTALL
FREE STRIPPING
FLAME RESISTANT
MOISTURE RESISTANT
LIGHTWEIGHT
POSITIVE IDENTIFICATION
UNDERWRITERS' APPROVED
FOR WET OR DRY LOCATIONS

The distributor salesman who can offer his customers G-E thermoplastic building wire (Types T and TW) is a step ahead of his competitors for two big reasons. First, of course, is the fact that this wire has many outstanding features to meet almost any customer's requirements. Second, and almost as important, is that intangible thing called *confidence* — a strong factor when you figure future sales possibilities in terms of the customer's satisfaction with the performance of the wire you supply.

This confidence is based on immediate recognition of the G-E name as a symbol of quality. It is also the result of the day-in, day-out reliability of G-E thermoplastic-equipped wiring systems. When those systems stand up for years of service, with minimum maintenance costs and almost no deterioration from acids, alkalies, sunlight, and many common hazards of use — that's when you earn the extra confidence that brings your customers to you for all their electrical requirements.

Why not write for more information on G-E thermoplastic building wire today? Section W17-326, Appliance and Merchandise Department, General Electric Company, Bridgeport, Connecticut.

GENERAL ELECTRIC

TAX REVISION...

Can Make or Break American Business

IS THE American way of life—progress by private initiative—going to get a fair chance to demonstrate its superiority over all the challenging varieties of collectivism?

That's the real question before Congress as it confronts the long labor of remodeling the federal tax structure. What Congress does about taxes will come pretty close to making or breaking the U. S. A.

Today the tax colossus that sprawls across the national economy is unguided by any central nervous system. Its crushing weight comes down first here, then there, as the giant wobbles around, unguided by any central purpose except to grab as much as it can.

The central purpose of a tax system is simple. It should raise the necessary revenue without placing unnecessary fetters on enterprise.

As recently as 1929 federal taxes took only one dollar out of every twenty of national income. A loose-jointed and inconsistent tax structure was a nuisance then. But it wasn't serious.

Today the federal tax burden is the dominant element in the nation's economy.

Even if Congress succeeds in cutting $6 billions out of President Truman's $37.5 billion budget, federal taxes still will take about one dollar out of every five of the national income. And few Congressmen are hopeful enough to think that they can get the tax load below $25 billion for any year that is in sight.

Drastic Budget Cuts Required

Indeed, to get the tax load down to $25 billion, Congress will have to stop treating expenditures, like those for military purposes and veterans, as politically sacrosanct. Congress must scrutinize *every* item in the budget. Economy must go along with tax cutting or we shall end in bankruptcy.

Suppose that expenditures are slashed to the bone. Our taxes *still* will be so heavy that the *way* they are loaded on the nation's back will make a big difference in how well the nation gets along. That's something which the postwar boom has tended to obscure. It will become much clearer as this boom wears off. Then a remodeling of the federal tax system to remove its manifold obstructions to private enterprise will be of transcendent and obvious importance to everybody.

Tax Experts Agree

The remodeling will require political courage plus tax wisdom. Congress must supply its own political courage. But it can lean on tax experts for tax wisdom. Fortunately, tax experts now agree on the necessary reforms—especially on those that will remove obstructions to business. How well the tax experts agree is shown in the charts on the next page, summarizing answers to a questionnaire on possible federal tax reforms. The questions were asked by the Department of Economics of the McGraw-Hill Publishing Company. The answers came from a broad cross-section of tax experts, including the authors of a considerable crop of books on postwar federal taxes and what to do about them.

The experts agree (see the charts) that double taxation of corporate dividends should stop.

They agree that the tax rate on corporate income (now 38 percent) should be reduced as rapidly as possible to the initial rate on individual income (now 20 percent).

And they agree overwhelmingly that it is desirable to let net losses be subtracted from net profits over a 5-to-6-year period in computing business income for tax purposes.

All three changes would stimulate corporate initiative and hence make jobs. Averaging business incomes would make new ventures attractive even though these ventures *might* result in early losses. Reduction of the corporate income tax would have the same effect. So, too, would the elimination of that highly discriminatory provision whereby corporate dividends are taxed first as corporate profits, and again when received as income by individuals.

Penalties on Incentives

Beyond these changes, there must be an end to tax penalties on *individual* initiative. Consider the enterprising business man whose income fluctuates markedly from year to year. Because of his enterprise he may pay, on the same income, twice as much federal income tax as the man who plays it safe for a steady income. That's because he can't average his personal income over several years for tax purposes. He can count on heavy taxation of his good-year profits with no chance for offsetting against them his bad-year losses. It is a case of heads you lose, tails the tax collector wins. Eighty-six percent of the experts agree that an income-averaging allowance for individuals is desirable.

Three-quarters of them also agree that tax rates at the top end of the individual income scale (now running up almost to 90 percent) should come down. In my judgment, the total tax should not amount to more than 50 percent to encourage business men to venture for high stakes.

Modern electrical systems for every requirement

SHERARDUCT

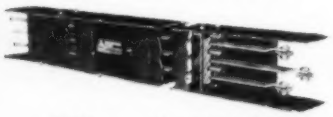
Full weight, threaded rigid steel conduit.
"Sherardized" for enduring service.

XDUCT JUNIOR

Thin wall Electrical Metallic Tubing.
Electro-galvanized.

METAL MOLDING

3 sizes with the "lay-in" principle.
Smooth, neat appearance.

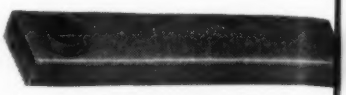


IPI and IFB BUS

PLUG-IN and FEEDER BUS systems.
Just plug-in the loads.

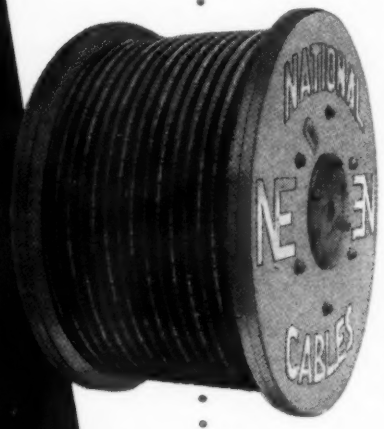
PLUG-IN STRIP

Wired multi-outlet assembly
Outlets every 18"
For real convenience.



NEPCODUCT

Modern under-floor wiring system.
For power, light and communication circuits.



ELECTRICAL WIRE AND CABLE

Bare, insulated, armored and sheathed wire and cable for every location and requirement. Complete line of boxes and fittings for all installations.

GORILLA GRIPS

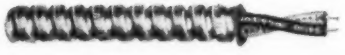
Precision connectors.
No special tools required.

SURFACEDUCT

2 1/8" x 1 5/8" raceway for loads to amp. *Lay-in the wires.*
Snap on the capping.

Since 1905, National Electric has been a leader in meeting the ever-changing demands of the Electrical Industry.

Today National Electric enjoys an enviable reputation as a trustworthy source of supply for complete wiring systems and fittings for every conceivable electrical requirement.



A.B.C. CABLE

Flexible steel armored bushed cable.
The bushing protects the wires.

FLORDUCT

Beveled, across-the-floor raceway.
Withstands the bumps.

NATIONAL ELECTRIC PRODUCTS
NE
WIRING 6 SYSTEMS
WIRES AND CABLES

All N. E. products are approved by Underwriters' Laboratories

● Sold nationally through Electrical Wholesalers

WIREWA

Accessible 4 x 4 industrial wireway.
For circuits up to 600 volts.

LOOMWIRE

Non-metallic sheathed cable.
Complete line of Loomwire fittings and boxes available.

National Electric Products Corporation
Pittsburgh 30, Pa.

Advocating tax relief for men in the higher income brackets—and particularly for management men—has been considered political suicide for more than a decade. Some members of Congress still hold that view. A Democratic Congressman from Michigan told an Illinois colleague who advocated cutting upper bracket taxes, "If you put that idea forward at home, you won't come back."

The Congressman has an even better chance of not going back if our economy bogs down. One of the best ways to bog it down is to keep the taxes that destroy business incentives and block enterprise—for example, the confiscatory rates which drive the people in the high brackets away from risk-taking.

To give the American system of individual enterprise a fair chance was clearly the mandate of November's election. To give it that chance, enterprising business men must have a chance to make large rewards—as well as the always-present chance to lose their shirts. Under present tax rates, they don't get a break.

Prevailing federal taxation throttles bold business enterprise in other ways. It fails, for example, to encourage research and rapid industrial modernization. It tends to siphon investment away from private enterprise, driving it into tax exempt state and local securities. (The experts agree almost to a man that such tax exemption must be eliminated.) The list of obstacles could be amplified.

Hit-and-Run Revision Disastrous

Most of the reforms needed to prevent the federal tax system from smothering enterprise would lower federal revenues, at least temporarily. Elimination of the double taxation of corporate dividends might lop off $800 million. Dropping the corporate income tax from 38 percent to 20 percent might cut away as much as $4 billion.

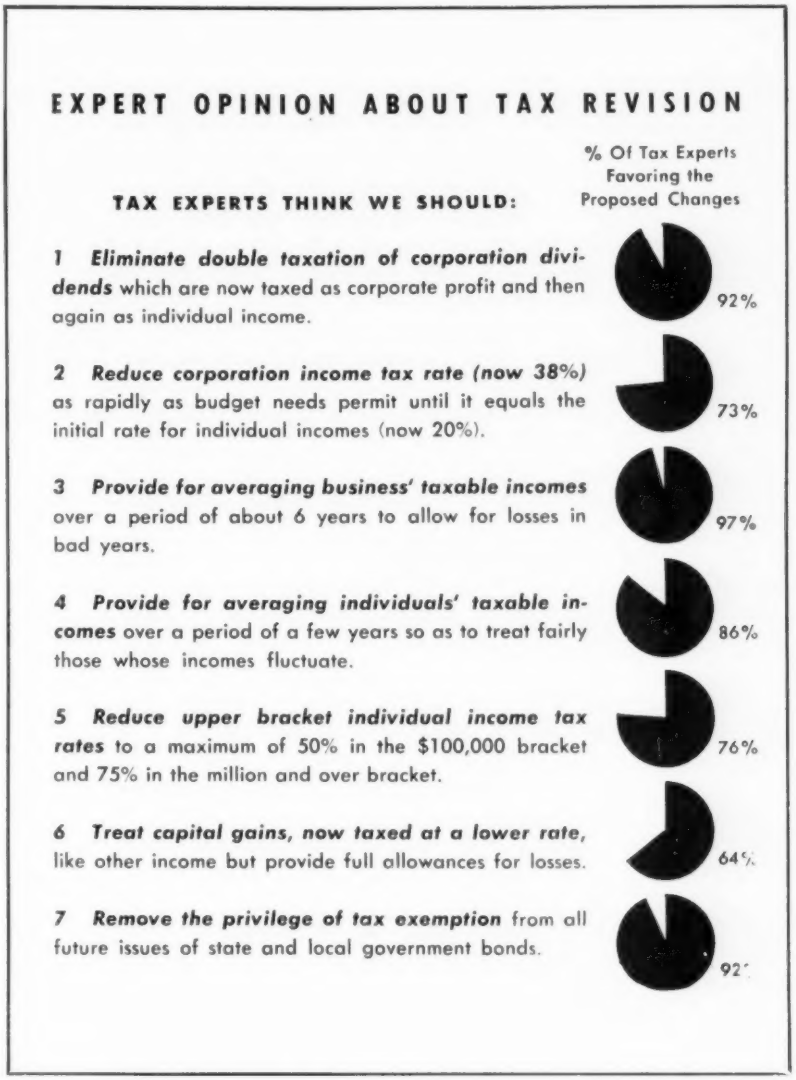
Because we can not avoid enormous federal expenses in the years immediately ahead, all badly needed reforms of the type to which this article is confined obviously can't be made at once. Also there are other tax reforms bearing on consumption which obviously should be weighted in an over-all program of tax revision.

But this is equally obvious: We should have a general design for tax revision which would line up all the necessary steps. Then we could get ahead with tax reductions as rapidly—and as sensibly—as revenue requirements and political courage would permit. Tax cutting may come piece-meal, but tax planning must not.

Through such a design we might discover that some decidedly beneficial improvements in the federal tax structure can be made at relatively slight cost. But today there's no way to be sure. No one in Washington with access to the information has even undertaken to make the necessary estimate.

Instead, federal tax revision continues to be a hit-and-run business—and a short-run political business. Take, for example, the proposal of a 20 percent tax reduction across the boards. There are virtues in such a proposal. But how they stack up beside many other extremely urgent needs for tax reform remains a mystery.

Congress must dispel such mysteries. Only in that way will it do the job of converting our present jerry-built tax structure into a moderately safe abode for the American system of private initiative, sparked by adequate incentives.


EXPERT OPINION ABOUT TAX REVISION
% Of Tax Experts Favoring the Proposed Changes
TAX EXPERTS THINK WE SHOULD:
1 Eliminate double taxation of corporation dividends which are now taxed as corporate profit and then again as individual income.
92%
2 Reduce corporation income tax rate (now 38%) as rapidly as budget needs permit until it equals the initial rate for individual incomes (now 20%).
73%
3 Provide for averaging business' taxable incomes over a period of about 6 years to allow for losses in bad years.
97%
4 Provide for averaging individuals' taxable incomes over a period of a few years so as to treat fairly those whose incomes fluctuate.
86%
5 Reduce upper bracket individual income tax rates to a maximum of 50% in the $100,000 bracket and 75% in the million and over bracket.
76%
6 Treat capital gains, now taxed at a lower rate, like other income but provide full allowances for losses.
64%
7 Remove the privilege of tax exemption from all future issues of state and local government bonds.
92%

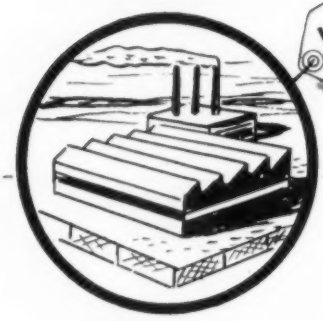
James H. McGraw, Jr.

President McGraw-Hill Publishing Company, Inc.

THIS IS THE 56TH OF A SERIES

HERE'S WHY YOUR SALES SOAR

UNLIMITED BIG VOLUME MARKETS



NOW INCREASED PRODUCTION *plus* INCREASED PROMOTION

means Volume Sales for *YOU!*

You can sell "Wire-Nuts" anywhere wire connections must be made . . . More than 800 million "Wire-Nuts" are in use, and the current market is conservatively estimated at *400 million connectors per year!* To meet this vast demand, "Wire-Nut" production already has been greatly increased. Right now, jobbers can get stock to back up their sales effort.

Also going into high gear is the biggest advertising and promotion program in "Wire-Nut" history. Month after month . . . by trade paper, direct mail, and personal contact . . . men in every major market will be told to "See Your Ideal Wholesaler." *You* can cash-in on this ready-made business and make good profits from big-volume sales of Ideal "Wire-Nuts" to these big-volume users:

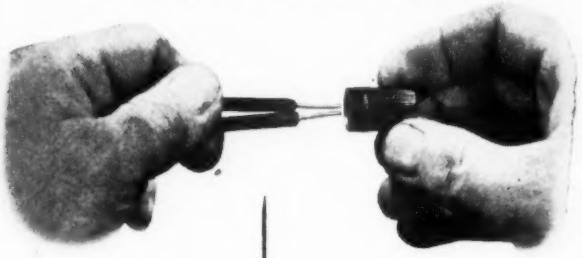
- **ELECTRICAL CONTRACTORS**
- **PLANT ELECTRICIANS**
- **MANUFACTURERS OF ELECTRICAL EQUIPMENT**

IDEAL INDUSTRIES, Inc.
1047 PARK AVENUE • SYCAMORE, ILLINOIS

WITH IDEAL Wire-Nuts*

(THE SOLDERLESS, TAPELESS WIRE CONNECTORS)

AS EASY TO SELL AS THEY ARE TO USE!



SIMPLY SCREW ON — THAT'S ALL!

Just *one simple operation* makes a better connection of any usual combination of wires with an Ideal "Wire-Nut." Users save material and get the job done faster while making a joint that's *better electrically, stronger mechanically*. All you do is screw on Ideal "Wire-Nuts." The copper-coated coil spring insert *presses* clean threads into the wires, twisting and locking them into a secure connection that withstands *up to 3 times* more pull than the best soldered joint.

Write for full information on the Ideal Production and Promotion Program *today*.

COMPLETE YOUR CIRCUIT to BIGGER SALES and PROFITS NOW!

MOST POWERFUL ADVERTISING *in Wire Connector History*

FORCEFUL MAGAZINE ADVERTISING

Colorful, consistent ads in leading publications—Electrical Contracting, Electrical West, Electrical South, New England Electrical News, Chicago Electrical News . . . Electrical Manufacturing, Machine Design, Product Engineering, Lighting and Lamps—telling readers everywhere to "See Your Wholesaler" for Ideal "Wire-Nuts."

DOUBLE-BARRELED DIRECT MAIL PROGRAM

Two aggressive and intensive campaigns—specifically designed to sell "Wire-Nuts" to (1) Electrical Contractors and Plant Electricians, (2) Equipment Manufacturers—will bring live leads to be turned over to Ideal Wholesalers.

ON-THE-SPOT SALES HELP

Display material, folders, ad mats, "How-to-Use" selector charts and other sales aids available in quantity.

SAMPLE KIT

Ingenious packets with "Wire-Nut" samples for you to give your customers.

SALES-MAKING PACKAGE

Ideal "Wire-Nuts" are packed in attractive merchandising package, clearly marked to permit quick identification by counter men and store clerks.

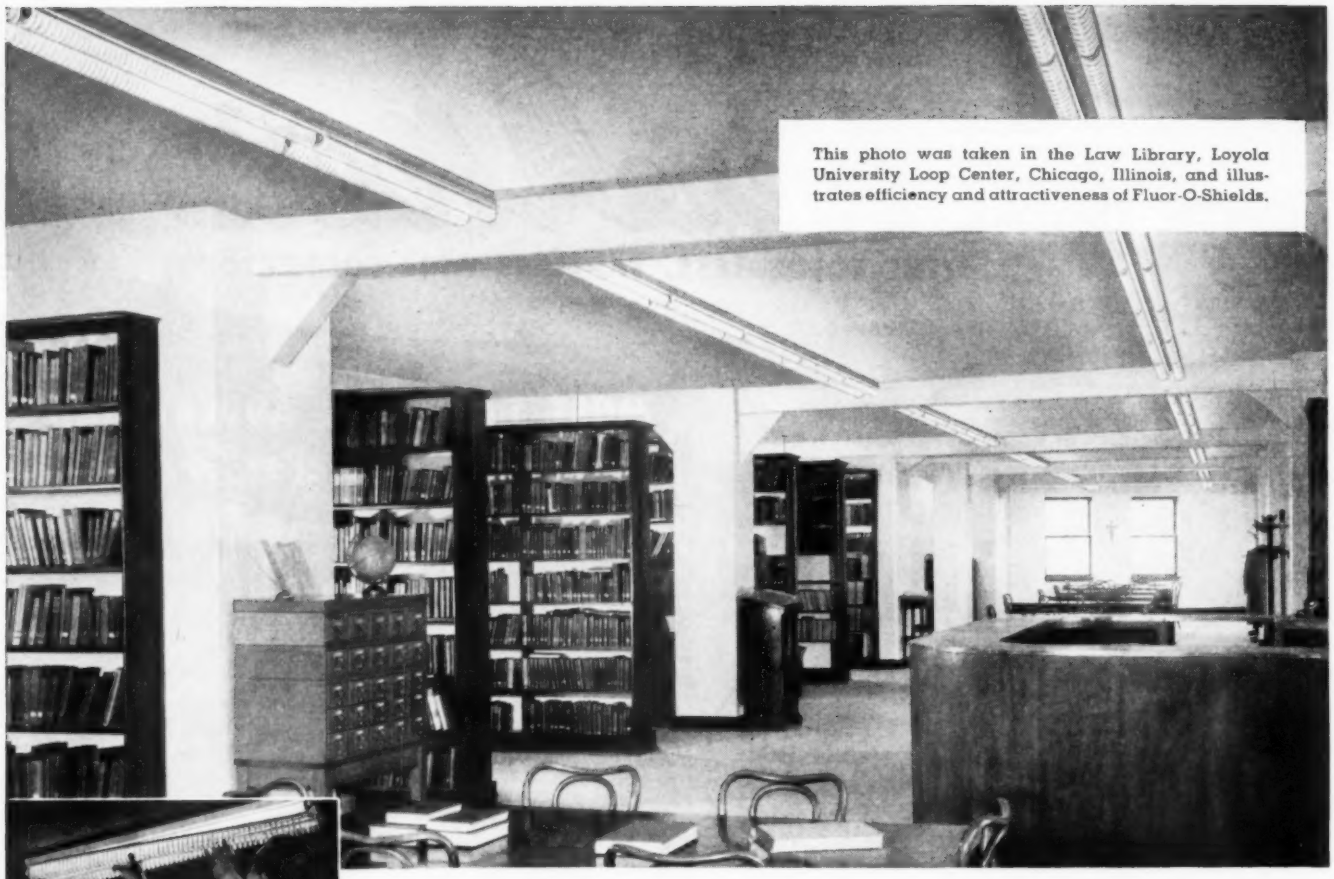
SALES HINTS

Concise, complete material to show your salesmen "Where and How to Sell More 'Wire-Nuts'."

. . . and IMMEDIATE DELIVERY to back up your sales force NOW!

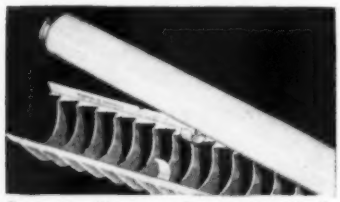
* Trade Mark Registered U. S. Pat. Off.

Distributed Through AMERICA'S LEADING WHOLESALERS

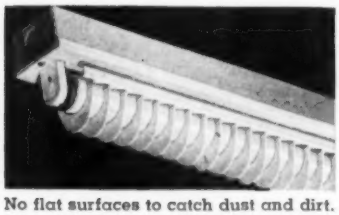


This photo was taken in the Law Library, Loyola University Loop Center, Chicago, Illinois, and illustrates efficiency and attractiveness of Fluor-O-Shields.

No trick to install Fluor-O-Shields. Just snap them on. No bolts or tools needed.



Snap-on clips permit instant attachment or removal for changing burned out lamps.



No flat surfaces to catch dust and dirt. 92% of the light and none of the glare.

3 sizes to fit most exposed lamp fixtures. For continuous or unit mounting.

Light weight, ease of attachment and all around efficiency make Fluor-O-Shield the most practical light diffuser on the market.

How a glare problem was solved at Loyola University

Fluorescent lighting is the most modern way of lighting today, but it also presents the problem of glare. The installation of eleven hundred fluorescent fixtures in the classrooms and libraries of Loyola University's loop center at 820 N. Michigan Ave., Chicago, required the use of some sort of light diffuser.

The ceilings are 9′ 5″ and fixtures were placed parallel to general vision direction (see illustration above). To produce an even intensity of light at reading level, Fluor-O-Shields (a total of 2,200) were specified for each of the 2-tube 40 watt fixtures by the lighting engineers. This is the most practical and economical way known to get the most efficient lighting with the least amount of glare.

Fluor-O-Shields are endorsed by lighting engineers, lamp tube manufacturers and electrical testing laboratories for use in factories, offices, schools — wherever good lighting is essential to better working conditions. For more data, specifications and information, write to address below.

THREE SIZES

$1.95 40 watt 46⅞ inch

$1.25 20 watt 22⅞ inch

NEW!

$2.95 100 watt 58⅛ inch

Aluminum finished in white baked enamel

FLUOR-O-SHIELD*

Light Diffuser for Fluorescent Lamps

*Trade Mark — Patent Pending.

CAMFIELD MANUFACTURING COMPANY • GRAND HAVEN, MICHIGAN

G-E *FLUORESCENT* BALLASTS

can help you win favor for your fixtures

One good way to start and wind up a sales story on fluorescent fixtures is to say, "... *the ballasts are G-E.*"

There's a reason for people's confidence in that name. With fluorescent lamp ballasts, it's the everlastingly watchful testing of raw materials and control of manufacturing processes which G-E maintains.

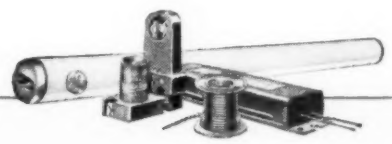
More than 20 tests assure the uniform quality of all ballast components. Completed ballasts are tested continually for voltage, heating and lighting characteristics. Finally, production line samples are subjected to *independent* tests by the Electrical Testing Laboratories*.

Silent salesman

The quiet operation of G-E ballasts can help a lot to *keep* your fixtures sold. So will the assurance they give of rated light output and freedom from maintenance expense. *Apparatus Department, General Electric Company, Schenectady 5, N. Y.*

We realize you are not getting all the G-E ballasts you need as quickly as you want them, but please remember that we are doing our utmost to increase production, despite continuing material shortages.

BALLASTS LAMPS STARTERS
CABLE LAMPHOLDERS
for
DEPENDABILITY in fluorescent lighting



**Also listed by Underwriter's Laboratories, Inc*

GENERAL ELECTRIC

412-3-5205

H & H Lock Switches

With CORBIN Pin Tumbler Locks

Keep control of the lighting in proper hands! Guard against unauthorized tampering with lights in schools, hospitals, theatres, auditoriums, hotels or any other building used by the general public.

The Lock Switches pictured here are no ordinary switches with locking device. They're time-tested H & H Rotary Snap Switches, operated only by turning the key in a Corbin Pin Tumbler Lock.

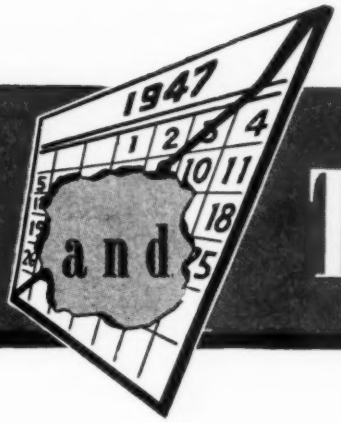
No. 1281 is standard type, single pole, available also in double pole, 3-way and 4-way. No. 1281-WP is weatherproof, with cadmium-finish screw cap plate fitting on a weathertight rubber mat. No. 1291 is a *master* lock switch, reciprocating type. After inserting key in lock, switch may be turned to right or left — ON or OFF, but key cannot be removed from switch in ON or OFF position. Write for data sheet on this *complete* line.

DISTRIBUTED THROUGH ELECTRICAL WHOLESALERS

HART & HEGEMAN DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC COMPANY, HARTFORD, CONN., U. S. A.

TIMES and TRENDS



An Anniversary Last month this magazine carried a 2-page advertisement under the title "50 Years of Achievement." One of the illustrations used in that advertisement consisted of a picture of a small 2-story stone building in which the company had started in 1897—occupying only perhaps 3,000 square feet on the second floor. The other showed the plant of the company as of 1947, occupying 30 or 40 acres, with buildings having hundreds of thousands of square feet of floor space.

Among the "achievements" listed in that advertisement was one which the electrical wholesaling industry might well commemorate by the erection of a monument or other suitable means, for it represents what this writer considers as the backbone around which since then the electrical wholesaling industry has grown and prospered.

The advertisement referred to was that of the Crouse-Hinds Company. The achievement here singled out from the others there listed read as follows:

> "1910—Mr. Crouse formulated a firm policy of equal discounts to all distributors and equal prices to other purchasers. Revolutionary in those days, it has since been generally adopted by the electrical industry."

To comprehend just how bold and daring a step the adoption of that policy represented at that time, the background of then existing conditions must be understood.

In the whole United States there were less than 200 electrical "jobbers." Most of them were large concerns—for those days—and covered large territories—often the entire country with their salesmen. Most of them were accustomed to bargain with manufacturers for the lowest possible price.

Only two years previously, in 1908, a large group of "jobbers," representing the bulk of the buying power of the industry had, in the words of one of them, "stood trembling in the shadow of Fort Leavenworth Federal Penitentiary" because conviction of all individuals in the group on charges of violations of the Sherman Anti-Trust Law seemed inevitable. For years previous to that some "jobber" groups had been accustomed to tell manufacturers not only to whom they might and might not sell, but also to dictate the price at which their products should be sold. They even imposed fines upon each other if one of them was "convicted" of having sold *for resale* "protected" products to a concern that did not "belong."

Since that day in 1910, when the late Huntington B. Crouse so daringly announced that history making policy, time has demonstrated that it constituted not merely the Crouse-Hinds Company's declaration of independence from dictation or interference by any individual or group with its sales policies.

It was also a providential act for the electrical wholesaling industry, in that it provided the foundation as well as framework for building a sound system of distribution under which artificial barriers or private fences no longer could impede the free flow of electrical products to the final user.

Today, 37 years later, anyone who is active in this industry needs only to examine the sales policies of any group of electrical manufacturers to realize that the 1910 achievement on policy, modestly listed in that Crouse-Hinds 50th Anniversary advertisement among eleven others, has since enrolled as declared disciples most of the reputable producers of those electrical goods that are susceptible to distribution through wholesale channels.

That our industry has grown to undreamed-of prominence and size and that those engaged in it have prospered, by and large, all is a matter of record.

That the forward-looking policy, audaciously announced by the Crouse-Hinds Company under trying conditions, had a profound influence in shaping its course is generally forgotten.

On the occasion of its fiftieth birthday and the thirty-seventh anniversary of its "Declaration of Policy" we extend not only our congratulations to the Crouse-Hinds Company, but also our deep appreciation for having courageously declared and consistently adhered to a policy that has contributed so materially to the soundness of the growth that our industry has enjoyed.

(That the Crouse-Hinds Company's policy actually

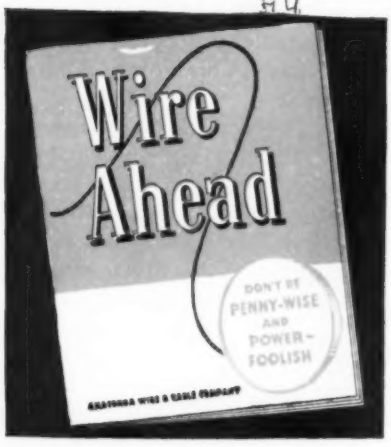
He makes production vanish!

HERE IS INDUSTRY'S most costly disappearing act! Are you *sure* there's none of this black magic in your plant?*

Inadequate Wiring, the industrial jinx, is at it every day. For overtaxed, overextended, obsolete wiring is cutting the efficiency of men and machines by 25 to 50 percent in hundreds of plants. Your plant power engineer, your consulting engineer, electrical contractor or utility power salesman can find this jinx . . . *and throw him out!*

47447

Because adequate wiring is basic ... and affects everyone in our industry ... Anaconda continues to promote this idea in a wide list of national magazines.



*WIRE AHEAD, a new booklet discussing preventive maintenance . . . the symptoms of inadequate wiring . . . and presenting plans for anticipating electrical demand, is now in preparation. We shall be glad to send it on request as soon as it is available. Address Advertising Department, 25 Broadway, New York 4, N. Y.

ANACONDA
from mine to consumer

ANACONDA WIRE AND CABLE COMPANY

had a profound influence on the policies of the electrical manufacturing industries was clearly acknowledged, when the Manufacturers Medal and Purse for 1939, given under the James H. McGraw Award, was presented to Huntington B. Crouse.

From the citation which accompanied that award the following is pertinent here:

(...when, becoming second president of the National Electrical Manufacturers Association (1928-29) he set to work to develop a plain pattern for the policies of the organized electrical manufacturing industry, by then well established in its objectives and its functions. His clear vision, his broad tolerance and his wise counsel carried forward the crystallizing of these policies of the manufacturing industry...)

★

Watch Your Shifting Markets A study recently made by the Department of Commerce developed interesting figures on new business enterprises as well as discontinued concerns.

New business of all types started in 1946 at the rate of 227 for every 1,000 existing at the beginning of the year. The contract construction industry apparently was considered the most attractive of all with 553 new firms starting for every 1,000 already in.

Among manufacturing industries the electrical field ranked well near the top, with 457 new concerns entering the race for business for every 1,000 existing at the beginning of 1946.

In the retail trades classification new retail automobile concerns and new appliance and radio stores ran almost a dead heat for first honors with the appliance and radio group scoring 452 newcomers added to each 1,000 existing when the year started.

However, the grim reaper of business enterprises recorded enough failures and discontinuances to make it evident that the old law of survival of the fittest still applies.

Against that above mentioned score of 227 new concerns of every 1,000, a one-to-four ratio, there were also 53 out of every 1,000 of all types of business, that fell by the wayside.

Worse yet, in the retail trade classification—the highest rate of discontinuances was scored by the appliance and radio stores group in which 77 closed shop for good out of every 1,000 that started the year 1946.

Smart salesmen will take these last figures as a hint that now is the time, not only to work closely with the man who passes on credit at headquarters but particularly with his customers who have shown signs of getting short of money.

Often a good business man can overexpand under present conditions and a helping hand from the salesman and his house may easily develop a plan for getting enough money to bridge him over the tight spot.

Also it's well to remember that the retail appliance and radio as well as the contracting fields are already expanded in many towns and cities far beyond what the trading territory can support.

With 1946 records showing that one new competitor started for every 2 electrical retail stores existing at the beginning of the year, and at least a similar ratio probable in the contracting end, the new ones coming in during 1947 are going to need close watching because the wash-out is bound to hit harder as the overcrowding increases.

For every dollar lost on a failure at least ten times as much has to be sold to good accounts before you are back where you were before.

★

Home Building According to the Bureau of Labor Statistics the year 1946 saw a total of 454,000 permanent homes completed of which less than ten percent were of the multi-family type.

It is anticipated that in 1947, 950,000 homes will be completed, including twenty percent of the multi-family type. That would still fall 30,000 short of the previous record of 980,000 units that were completed in 1928.

Meanwhile production of lumber and other building materials is rolling along at record breaking pace, in fact things are coming so fast that some optimists feel that the goal of 1,500,000 set for 1947 under the original Veterans Emergency Housing Program might be reached.

We have our fingers crossed—even on that 950,000 bogey.

EDITOR

Now you can get

The finest sun lamp bulb ever built by Westinghouse. Thousands have been sold at $15.00

- COMPLETELY SELF-CONTAINED
- FITS ANY STANDARD 110-125 VOLT AC SOCKET
- 3 TIMES THE SUN-TAN POWER OF A JULY SUN
- MADE OF PYREX GLASS — WON'T BREAK IF SPLASHED WITH WATER
- HAS AMERICAN MEDICAL ASSOCIATION COUNCIL ON PHYSICAL MEDICINE SEAL OF ACCEPTANCE

HERE ARE SOME SELLING SENTENCES TO HELP YOU SELL MORE SUN LAMPS

Gone is the old-fashioned idea that made sun lamp "treatments" a ritual similar to the Saturday night bath. Here is a completely self-contained sun lamp. It's easy to use the Westinghouse RS Sun Lamp anywhere... anytime. You simply screw it into any ordinary 110-volt A-C socket. This amazingly compact and inexpensive source of beneficial ultraviolet has 3 times the sun-tan power of the July sun. It's a daily health aid for the whole family.

IT'S A YEAR-ROUND SELLER FOR YOU

REAL VOLUME

in Sun Lamps!

EVERYBODY WANTS A SUN LAMP
NOW EVERYBODY CAN HAVE ONE

WESTINGHOUSE DOES IT!
NEW LOW PRICE

$9.95
WAS $15

For the first time in history you can now offer your customers a sun lamp that costs less than $10. Moreover, with the exception of the mid-summer months, this sun lamp is a year-round seller.

The American public has been so sold on vitamins, particularly Vitamin D, that the desire to own and use a sun lamp is almost universal. The only thing that has kept thousands of families from having one has been the price. Now the new $9.95 price puts the Westinghouse RS Sun Lamp into a price range every family can afford.

Competent authorities recommend daily use of the sun lamp. Many homes can conveniently use two: one permanently mounted over the shaving mirror and another in an inexpensive portable bracket or old bridge lamp for general use.

Don't miss this opportunity for high-volume, high-profit sales. If you don't have a stock of Westinghouse RS Sun Lamps get in touch with your Westinghouse lamp distributor. If you have a stock, now is the time to push them... in your windows... on your counters. Lamp Division, Westinghouse Electric Corp., Bloomfield, N. J.

FOR DISPLAY AND ADVERTISING HELPS, WRITE FOR SPECIAL SUN LAMP PROMOTION KIT

Westinghouse Lamp District Offices: **1299 Northside Drive, N. W., ATLANTA; 10 High Street, BOSTON; 20 N. Wacker Drive, CHICAGO; 40 Wall Street, NEW YORK; 3001 Walnut Street, PHILADELPHIA; 32 Blvd. of Allies, PITTSBURGH; 1 Montgomery Street, SAN FRANCISCO; 411 N. 7th Street, ST. LOUIS**

Westinghouse *Lamps*

HIDDEN BEHIND THE FACE of your watch are over 150 precision parts—the "works" that make a watch a useful and dependable mechanism. In FEDERAL NOARK electric products, as in the construction of a fine time-piece, *precision* is a built-in characteristic . . . precision that makes for dependable performance under the most gruelling of operating conditions.

HERE'S THE "WORKS" OF A FEDERAL NOARK MAGNETIC MOTOR STARTER

• Double Break Silver Contacts • Accessible Stationary Contacts • Single Screw Movable Contacts • Heavy Arc Barriers for Strength • Ball Bearings & Movable Yoke • Non-Carbonizing Asbestos Base • Vertical Ball Bearing Action • Quick-Change Coils • Overload Relays — Hand & Automatic Reset • Front Mounted Accessible Heaters

Federal Electric Products Company, Executive Offices: 50 Paris Street, Newark 5, N. J. • Plants: Hartford, Conn. • Newark, N. J. • St. Louis, Mo.

Federal NOARK
INDUSTRIAL CONTROLS

FEDERAL ELECTRIC PRODUCTS COMPANY, MANUFACTURERS OF A COMPLETE LINE OF ELECTRICAL PRODUCTS INCLUDING: MOTOR CONTROLS, SAFETY SWITCHES, CIRCUIT BREAKERS, SERVICE EQUIPMENT, PANELBOARDS

ELECTRICAL WHOLESALING News

Nation Pays Tribute To Thomas A. Edison

Electrical leagues, associations, clubs and industrials observe Edison Centennial. Henry Ford accepts invitation to head fund seeking group for Edison Foundation

ALL over America, from Coast to Coast, school children, civic groups, great industries and electrical societies paused last month to pay tribute to the genius of Thomas A. Edison on the occasion of the 100th anniversary of his birth.

New York, N. Y.

In New York City the Thomas Alva Edison Foundation announced that Henry Ford had accepted the invitation of the Foundation to serve as honorary chairman of a group of industrialists, scientists and educators, who will take part in the effort to raise funds for the Thomas Alva Edison Foundation.

Philip D. Reed, chairman of the board of General Electric Company, will participate as chairman of the Industrial Division of the fund. William S. Newell, president of the Path Iron Works, will head the New England Division and James F. Lincoln, president of the Lincoln Electric Company of Cleveland, Ohio, will be in charge of the Western Division.

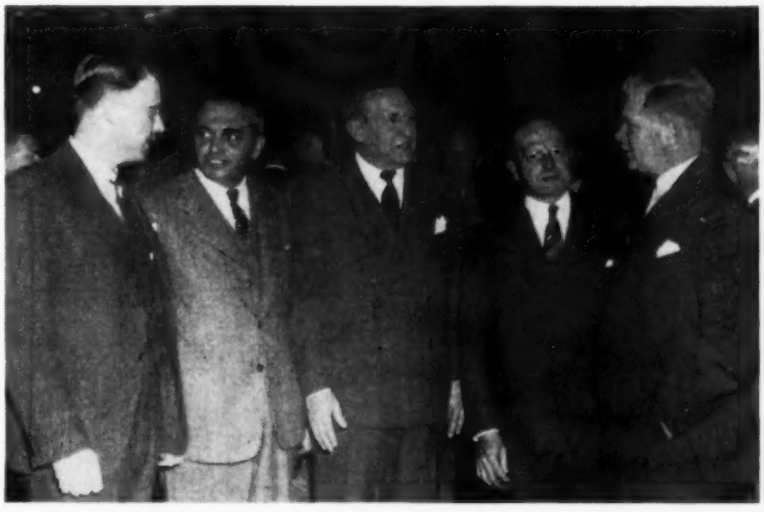
The announcement of their acceptances were made by Harvey S. Firestone, Jr., National Chairman of the Foundation Fund. Mr. Firestone said that the appointment of additional chairmen will be announced in the near future.

The stated purpose of the Foundation is "to keep alive and active the genius exemplified in the life, accomplishments and ideals of Mr. Edison and thereby to stimulate research and educational activities for the more effective advancement of human welfare."

Immediate Aims

Mr. Firestone said that the immediate objectives of the Foundation are threefold: Preservation of Edison's Laboratories and Library at West Orange, N. J.; establishment at West Orange of the Edison Center for Invention, Discovery and Research, and the restoration of the nation-wide Edison scholastic competition so that fundamental American concepts of life and government may be instilled in Young America.

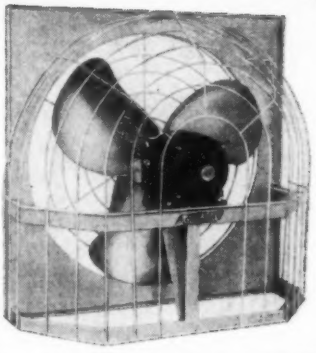
The American Institute of Electrical Engineers, New York Section and 21 other professional societies sponsored the 100th anniversary dinner at the Waldorf-Astoria in New York City. Almost 1000 guests attended the dinner to hear an address by Dr. Oliver Carmichael, president of the Carnegie Foundation for the Advancement of Teaching. Postmaster Albert Goldman presented albums containing the new Edison centennial stamps to Mrs. Thomas A. Edison, the inventor's widow and his son, Charles, and



E. B. INGRAHAM, Times Appliance Company, New York, talks things over with executives of Landers, Frary & Clark during the latter's East Coast distributor sales conference recently held in the Hotel Bond, Hartford, Conn. Left to right: F. L. Dabney, treasurer; Hardy Payor, assistant sales manager; Mr. Ingraham; E. J. Van Buskirk, vice president, and R. L. White, president.

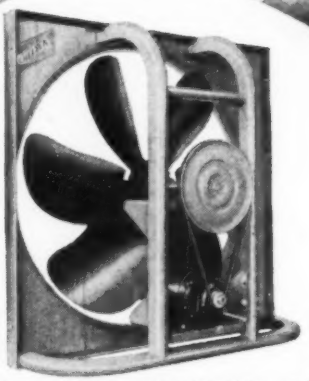
CHELSEA FANS & BLOWERS

...provide clean, fresh circulated air...



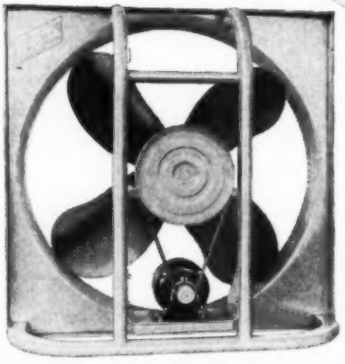
TYPE AA — FOR FOOD FREEZER, MEAT PACKING & STORAGE PLANTS

High air moving capacities . . . Dependable, economical, ball bearing, totally enclosed motors . . . Ratings up to 4800 CFM . . . Front and rear guarded.



TYPE IND — FOR FACTORIES, LOFTS, SPORTS ARENAS, LARGE AREAS

Heavy duty ventilators for air blast action . . . Rugged construction . . . High efficiency ratings to operate against static pressures. Ball bearing motors and drives.



TYPE ED — FOR HOMES, SCHOOLS, CHURCHES, HOSPITALS, INSTITUTIONS

Quiet operation combined with high air deliveries . . . Rugged, streamlined construction . . . Rubber cushioned against vibration. Low power consumption.

Winter or summer, Chelsea ventilating units help make the day's activity more comfortable, more healthful, more profitable. User acceptance of these efficient air movers is a direct result of Chelsea design and range of models . . . a fitness for the job that makes every Chelsea fan deliver extra measures of satisfactory operation. Featured in most models are rugged, all-steel construction . . . dynamically balanced blades . . . efficient, cool-running motors and drives . . . rubber cushioned moving parts . . . Get the details on the Chelsea line NOW. Chelsea fans are in great demand; early orders mean early deliveries!

...wherever people live, work, play or gather!

CHELSEA

CHELSEA PRODUCTS · INC.

FACTORIES: COIT, GROVE & OLSEN STS., IRVINGTON, NEW JERSEY

during the evening six searchlights lighted the skies over New York City, a remarkable contrast to the first incandescent lamp invented by Mr. Edison in 1879.

Chicago, Illinois

At the Palmer House, Chicago, some 700 members of electrical associations attended a banquet honoring the memory of Thomas Edison. Addresses were made by W. O. Batchelder, commercial vice president of General Electric; Charles Y. Freeman, chairman of Commonwealth Edison in Chicago and John Conrad of NBC.

West Orange, N. J.

One of the most interesting events which occurred during the country-wide centennial celebration was the opening of Edison's desk by his son, Charles Edison, at the inventor's old laboratory and library in West Orange, New Jersey.

The desk contained notes and sketches of work done by Mr. Edison as well as personal belongings such as tobacco and literature. Some were inclined to speculate on the significance of a small bottle of "Uranium Nitrate," which was found among the many bottles of chemicals in the desk.

Menlo Park, N. J.

At Menlo Park, N. J., where Edison worked for ten years to perfect the first incandescent lamp, the residents dedicated a bronze plaque in memory of the "Wizard of Menlo Park."

The inventor's son, Charles Edison, and A. Harry Moore, both former governors of New Jersey, took part in the ceremonies. The plaque was set in a four and one-half foot high granite block at the base of the Edison Tower.

Fort Myers, Fla.

In Fort Myers, Florida, the winter home of Thomas A. Edison, the centennial celebration featured the "Edison Pageant of Light."

Milan, Ohio

At Milan, Ohio, where Thomas Edison was born, a centennial observance began with special services at the Edison Memorial Methodist Church. A choir of 800 voices, selected from the residents of the community, sang favorite hymns of the inventor.

Elsewhere throughout the nation, electrical leagues, associations, clubs and industrials sponsored special events for the observance of the Edison Centennial. Some state governors issued proclamations to observe Thomas Alva Edison Day.

CALIFORNIA ELECTRIC SUPPLY CO., San Francisco wholesaling firm, exhibited its merchandise at the recent 62nd Western Home Goods Market held at the Western Merchandise Mart, San Francisco. The fourth floor of the Mart, the radio and appliance floor, was jammed with dealers and buyers.

A PREVIEW of an extensive exhibit now under construction by the Electric Institute of Washington is shown in this photograph of the entrance to the Institute's display floor in the lobby of the Potomac Electric Power Company building, Washington, D. C. The above display represents the "theme center" for the exhibition. A portion of the display was opened recently, although the more elaborate features will not be completed until late fall.

West Coast Wholesaler Announces New Personnel

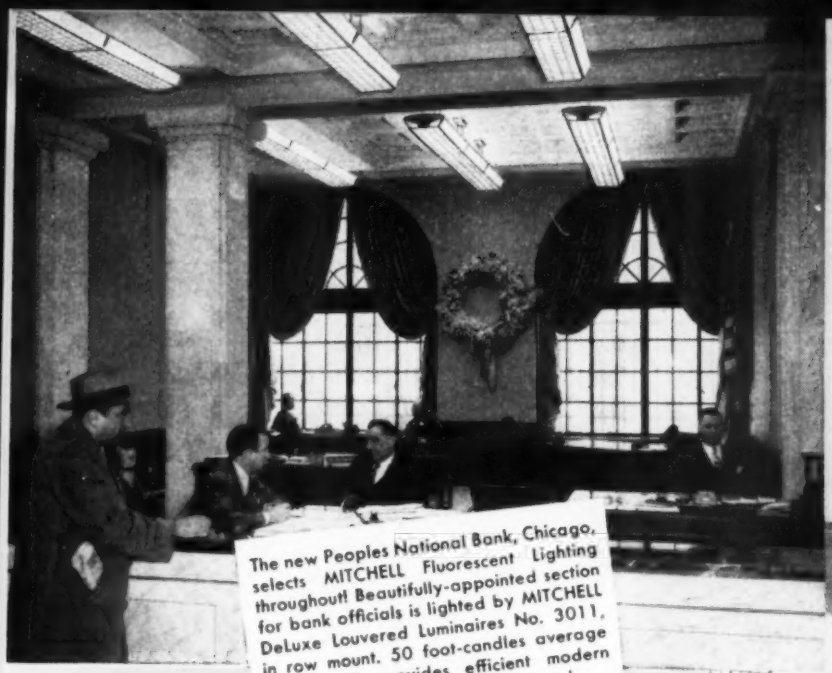
SAN DIEGO—T. F. Young, formerly with the U. S. Maritime Commission, Portland, Ore., is now handling radio service for Gough Industries, Inc., San Diego, Calif.

Harold Barner, at one time with the California Wholesale Electric Co., and more recently in the Navy, is a new outside salesman.

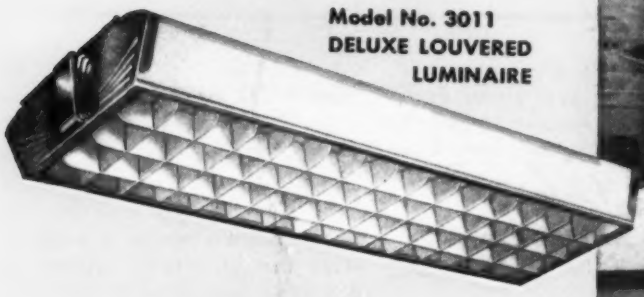
Sidney Foster, floor salesman and stock clerk, has returned from the armed services. Miss Edith Campbell is the new bookkeeper.

MITCHELL

Better Light for Better Banking



The new Peoples National Bank, Chicago, selects MITCHELL Fluorescent Lighting throughout! Beautifully-appointed section for bank officials is lighted by MITCHELL DeLuxe Louvered Luminaires No. 3011, in row mount. 50 foot-candles average maintained; provides efficient modern lighting for an efficient modern bank.



Model No. 3011
DELUXE LOUVERED LUMINAIRE

Main banking floor of the Peoples National Bank . . . completely lighted by MITCHELL No. 3011 Luminaires. In spite of the lofty ceiling, an average of 40 foot-candles is maintained. Entire layout planned by the Electricity Sales Department, Commonwealth Edison Company, Chicago, Illinois. (Contractor—Hultgren Electric Corporation, Chicago.)

Bankers, like all other progressive businessmen, know that really good lighting is a shrewd investment on two counts. First, it pays for itself in greater employee comfort and efficiency. Second, it builds better business because it promotes better public relations.

Naturally, MITCHELL Fluorescent Lighting is preferred by public-service institutions, because MITCHELL has established a superior reputation for lighting service in the institutional field. MITCHELL Lighting imparts dignity and prestige to the finest interiors, combining impressive appearance with effective high-level, evenly distributed, comfortable illumination.

For greater employee efficiency, for better public relations and more profitable business, MITCHELL Lighting is a gilt-edge investment.

The Peoples Bank installation is typical of hundreds which are building acceptance for MITCHELL Lighting—and bringing better business to the wholesaler. MITCHELL sales are clean package transactions—trouble-free volume business. MITCHELL installations are easy, smooth jobs for the contractor—time-saving, profitable business.

Mitchell Manufacturing Company
2525 CLYBOURN AVENUE, CHICAGO 14, ILLINOIS
In Canada: Mitchell Manufacturing Company, Ltd., Toronto, Canada
Far West: *Complete Modern Plant and Sales Office at Los Angeles Serves the Entire Pacific Coast Area*
1019 NORTH MADISON AVENUE, LOS ANGELES 27, CALIFORNIA

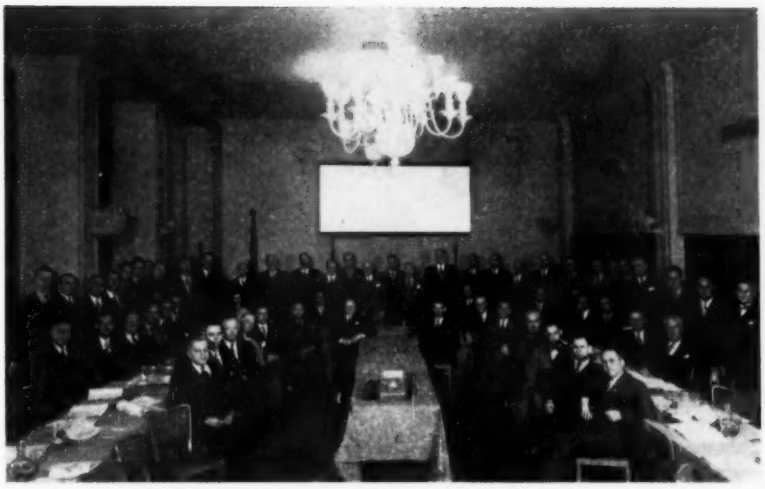
MITCHELL *Better Light for Better Business*

Makers of Commercial and Industrial Fluorescent Lighting Equipment Store Window Lighting • Spotlights and Floodlights • Desk Lamps • Portable Floor and Table Lamps • Bed Lamps • Ultraviolet and Infrared Health Lamps • Residential Lighting Specialties . . . Rad-I-Air Germicidal Units (made by Tru-Air Ultraviolet Products Co., Los Angeles)

Associated Wholesale Has Windows Broken By Blast

LOS ANGELES—Only one electrical wholesaler was near enough to feel the effects of the devastating explosion of an electroplating plant in Los Angeles on February 20.

The blast, which took the lives of at least 15 people, injured 130 others and flattened several blocks of buildings, shattered several windows of the Associated Wholesale Electric Company. No injuries to employees were reported.



THIRD ANNUAL SALES CONFERENCE of Day-Brite Lighting, Inc., was recently held in the Hotel Statler, St. Louis, Mo. Guests who addressed the meetings included: Edward Rambusch, Rambusch Decorating Company; C. C. Keller, Holophane Co.; Art O'Day, George Baumgartner, C. Stonehill and P. Hayes, all of the General Electric Company.

CPA Announces Easing of Inventory Restrictions

WASHINGTON — Inventory restrictions on wholesalers and retailers of consumer goods were largely relaxed recently when the Civilian Production Administration revoked its order L-219. The change removes all inventory restrictions from a group of items not essential to the national economy, and at the same time simplifies the reports required of many merchants.

Partly in connection with the revocation of L-219, a number of changes also were announced in Priorities Regulation 32, the over-all inventory control order.

CPA said that some items formerly listed in Direction 1 to L-219 had been transferred to Table 3 of PR-32, which specifically exempts them from inventory control. This list includes such items as antiques, clocks and watches, furs, jew-

(*Continued on page* 130)

Farm Market Expanding As Salesmen's Battleground

Over 1,675,000 rural consumers get electricity in 1946. Demand for wiring, lighting, machinery and appliances at a peak. Many salesmen of electrical supplies concentrating on farm market

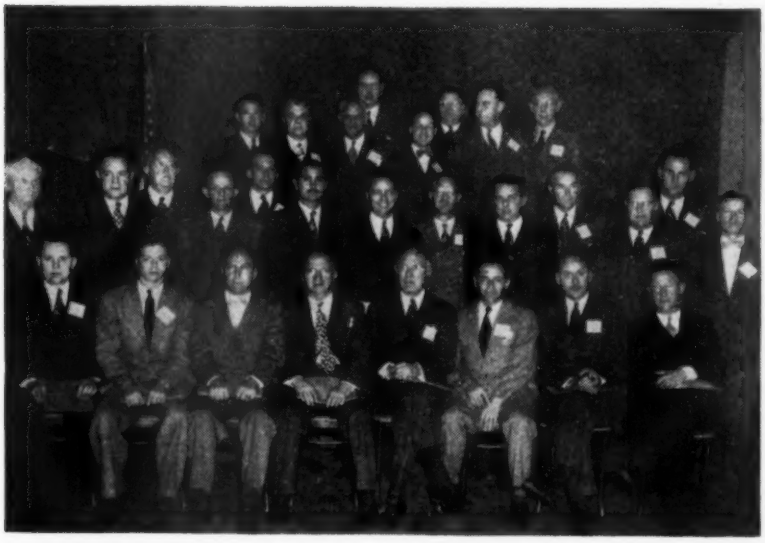
THE government's program to bring electricity to American farms is rapidly reaching its goal, according to recent reports of approved REA loans to cooperatives and other borrowers. A short time ago the Rural Electrification Administration announced that on the basis of preliminary 1945 Census figures, 52.9 percent of the nation's farms now have central station service.

As a basis for allotment by States of half of REA's loan fund for the fiscal year 1947, REA Administrator Claude R. Wickard estimated that, as of July 1, 1946, there were 2,769,955 farms in the United States that lacked central station electric service. This is 47.1 percent of the preliminary total of 5,876,730 United States farms reported by the Census Bureau of the 1945 Census of Agriculture.

In spite of the shortages of poles, conductor, transformers, line hardware and other materials, the program has gone steadily forward. REA borrowers have been able to connect to their lines as many as 20,000 consumers a month.

For many salesmen of electrical supplies, the farm market is one of the major markets today. Although the housing construction program is still the largest segment of the market for the electrical wholesaler, the demand by the newly-electrified farms has forced dis-

(*Continued on page* 119)



GRAYBAR Electric Co. was well represented at the recent Landers, Frary & Clark East Coast distributor sales conference, held in Hartford, Conn.

NOMA BUBBLE-

To the Biggest Year in the History

CLEVER • COLORFUL • NEW!

. . . NOMA Bubble-Lite Sets . . .
alive with bubbling action . . .
SELL ON SIGHT

118—8 Light Series Loop Type Outfit—Tri-plug connection with open outlet for attaching additional sets.

500—Noma Bubble-Lites—Nine shimmering crystal clear candles of bubbling light, set in colorful plastic bases. Completely wired. Has special clip to make attachment to tree easy.

YOU'LL FIND A HEARTY WELCOME at the NOMA EXHIBIT

East Room—1st Mezzanine
Hotel McAlpin—March 10-23

LITES LEAD THE WAY

of Decorative Lighting . . .

3415—*15 light Straight line* [illegible]—Wires in multiple...has Add-on connector...lamps burn independently.

3005—*7 Light Outdoor* [illegible] *Cap Lighting Set.* Weatherproof ...lamps burn independently, set has Add-on connector.

700—*Illuminated Tree Top Angel.* Silver wings and dress. Hidden cardboard cylinder makes it easy to slip over top of tree.

198—*Artistic Candolier.* Tapered candles equipped with lamps and halo device give beautiful glow effect.

★ **NOMA BUBBLE-LITES...** the most revolutionary development in decorative lighting since the invention of the electric lamp . . . already are a dramatic, dynamic sales-success.

NOMA COLOR LIGHTS are bright with sales appeal the year around. NOMA Christmas decorations are popular and profitable for NOMA dealers.

And—behind popular NOMA COLOR LIGHTS, profitable NOMA Christmas decorations and fast-selling NOMA BUBBLE-LITES—is the greatest dealer and consumer promotion campaign in all NOMA history. You'll see it soon . . . so get set to go places—with NOMA during 1947.

NOMA

ELECTRIC CORPORATION

55 WEST 13TH STREET • NEW YORK 11, NEW YORK

The Bettmann Archive

Home of Jefferson

which he designed and built. It remains today as a monument to fine tradition and hospitality.

Monticello

Home of Thomas Jefferson
near Charlottesville, Virginia

6th in a series on Thomas Jefferson, Third President of the United States.

The Home of Thomas Jefferson, a work of classic simplicity, reflects the strength of character and straight-line thinking of its illustrious designer.

The Jefferson Electric plant was also designed in dignified simplicity as a fit pattern to express the basic principles of Dependability, Leadership, Service, and Integrity. Here you will find all the features needed to manufacture the finest products in quantity, with the highest standards of quality, accuracy, and uniformity.

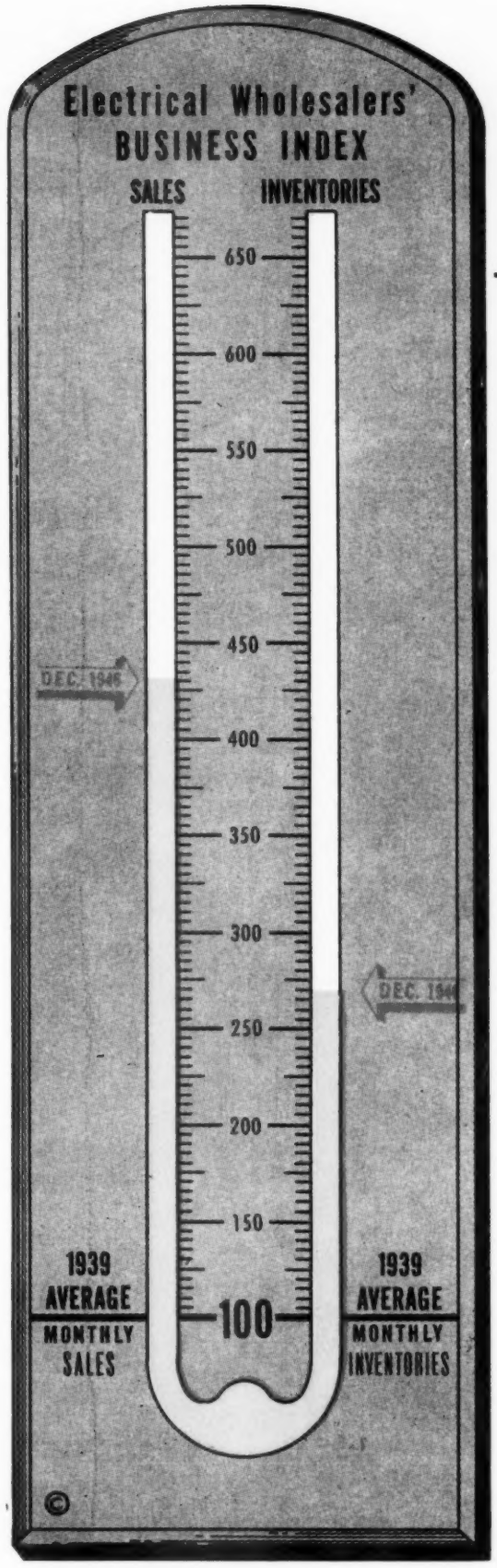
TRANSFORMERS: Power Circuit, Mercury Lamp, Oil Burner Ignition, Control, Bell Ringing, and Luminous Tube.
FUSES: Jefferson-Union Renewable Fuses, Super-Lag, and Non-Renewable. BALLASTS for Fluorescent Lamps.

JEFFERSON ELECTRIC COMPANY

BELLWOOD, ILLINOIS (*Chicago Suburb*)

In Canada: Canadian Jefferson Electric Co., Ltd., 384 Pape Ave., Toronto, Ont.

JEFFERSON ELECTRIC



SOURCE The figures we use as basis for these monthly comparisons of performance in the electrical wholesaling field are collected and compiled by the Bureau of the Census of the U. S. Dept. of Commerce.

ELECTRICAL WHOLESALING

FORMERLY WHOLESALER'S SALESMAN

Business Index

For the Month of December 1946

SALES Electrical wholesalers throughout the country ended 1946 with the largest dollar volume month ever recorded in the industry's history. With a gain of 31 percent over November, sales for December 1946 reached 428 percent of the 1939 average monthly volume of the largest month of the war period.

Unquestionably, three major factors brought about this tremendous increase in dollar volume . . . more goods available for delivery, the end of price controls, continuing large demand by customers.

Supplies in December were limited compared with backlog demand and resulting price increases right down the lists of electrical goods could not help but contribute substantially to the increase in wholesalers' dollar volume.

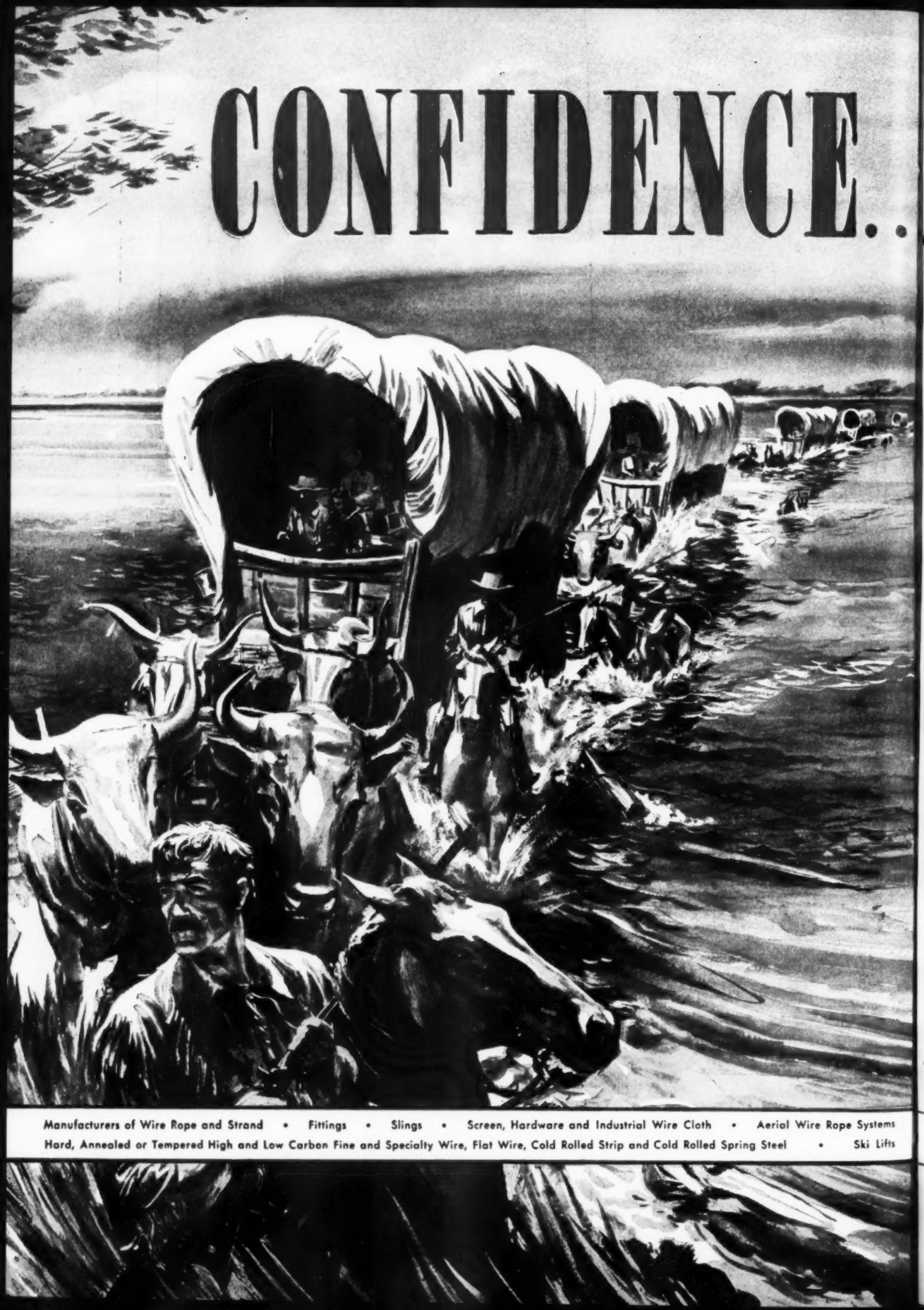
Contributing no small part to the December volume was the rush of buyers, the contractors, industrials, and dealers, who wanted stocks of every available item before the anticipated further price increases would come. Third factor, but a more normal economic condition, was the continuing increase in the production of electrical goods, a larger flow of almost everything the wholesalers needed to meet their customers' demands.

INVENTORIES Greatest evidence of the manufacturers' increased production is the 4 percent monthly increase in wholesalers' inventories during December 1946 when sales were jumping 31 percent in dollar volume.

However, it must be remembered that the release of price controls would have some effect on the Index figure of wholesalers' inventories because they are reported at cost value. The increase in the prices of those goods purchased from suppliers during December would be a factor in holding up the inventory figure in a month when wholesalers' heavy volumes of goods shipped were draining their warehouse stocks.

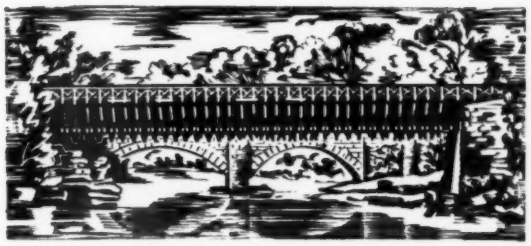
But, wholesalers' inventories are still to feel the full impact of the end of OPA. Not until all stocks have been replaced at the manufacturers' post-OPA prices will the Index figure show their full impact.

COLLECTIONS Collection percentage for December 1946 was 100. This was 6 points above the collection percentage for December 1945. Accounts receivable increased 8 percent from November, and were 126 percent above the level of the same month of 1945.



Manufacturers of Wire Rope and Strand • Fittings • Slings • Screen, Hardware and Industrial Wire Cloth • Aerial Wire Rope Systems
Hard, Annealed or Tempered High and Low Carbon Fine and Specialty Wire, Flat Wire, Cold Rolled Strip and Cold Rolled Spring Steel • Ski Lifts

.....how much is it worth?



IN 1844, three years before Alexander Graham Bell was born, and long before the first Prairie-Schooner crossed the Mississippi River, John August Roebling's confidence in the suspension principle of construction so impressed the engineers of the State of Pennsylvania, that they authorized him to build the world's first suspension aqueduct.

How much is his confidence worth to all the thousands of engineers who followed and to humanity in general that have benefited from his pioneering venture?

And how much is the confidence of the John A. Roebling's Sons Company in the future of American industry worth to you, that keeps Roebling development and Roebling products in the lead?

Roebling's greatest asset is your confidence in Roebling and its confidence in your future. That is why Roebling's every effort is dedicated to the preservation of this confidence—your's and Roebling's.

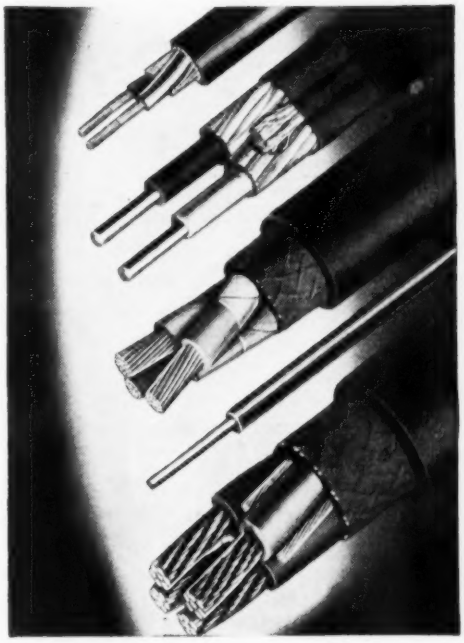
THESE 3 "EXTRAS" HELP YOU SELL MORE ELECTRICAL WIRES AND CABLES

YOUR CUSTOMERS buy Roebling electrical wires and cables because they're convinced they get more in dependability, service and long-run economy. But Roebling also gives additional push to this preference with 3 big "extras":

Extra! **ADVERTISING**—Leading business publications in the electrical field are featuring a dominating series of double-page color ads, reminding readers constantly of their own confidence in Roebling electrical wires and cables.

Extra! **ENGINEERING**—Experienced Roebling field men are always on call to help crack your customers' cable problems. It's a sales-boosting service that attracts buyers . . . brings them back to you again and again for more business.

Extra! **WAREHOUSING**—You can often change a "no sale" into a profitable deal if you promise rush delivery in emergencies. Right now adequate stocks of standard electrical wires and cables are being accumulated in the network of Roebling branch warehouses throughout the country. That means you'll be able to depend on efficient service and prompt deliveries to back up your promises.

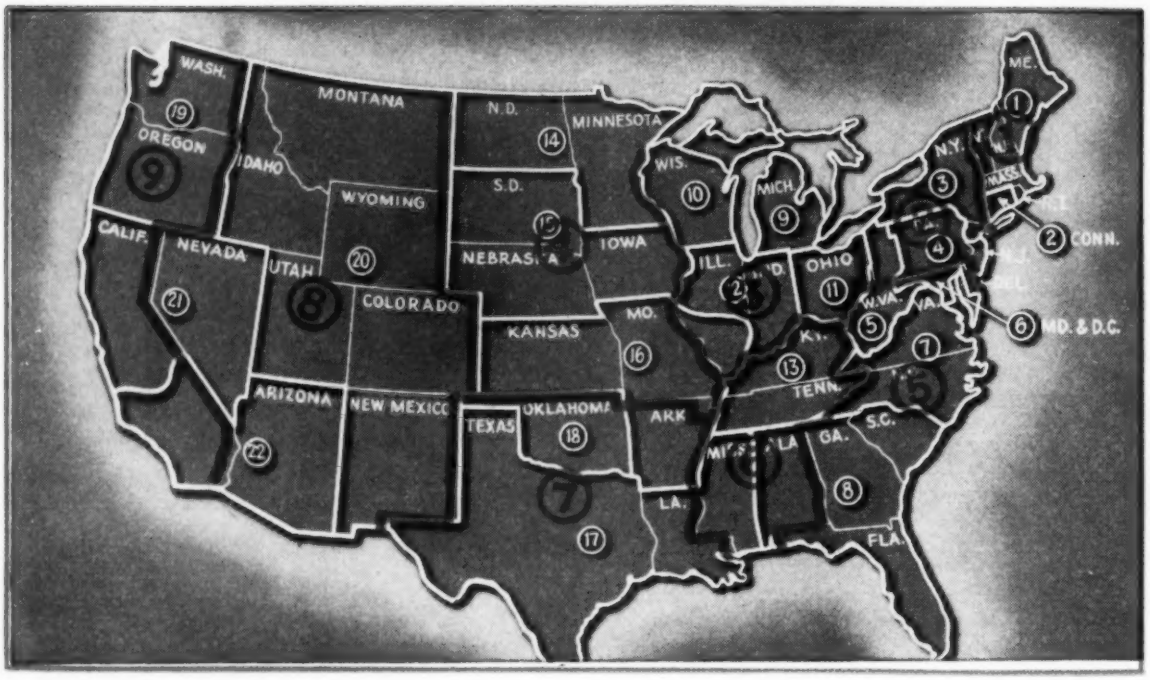


JOHN A. ROEBLING'S SONS COMPANY
TRENTON 2, NEW JERSEY
Branches and Warehouses in Principal Cities

Electrical Wire and Cable • Suspension Bridges and Cables
Aircord, Aircord Terminals and Air Controls • Lawn Mowers

ROEBLING

A CENTURY OF CONFIDENCE



Electrical Wholesaling BUSINESS INDEX

REGIONAL ANALYSIS

DECEMBER, 1946

THE sales of electrical goods in December 1946 were well distributed throughout the groups of states with but one exception.

The fact that the monthly increase in dollar volume was so great, yet was relatively evenly distributed throughout the country, is further evidence that the gains were the result of increased list prices for most of the goods wholesalers delivered. Only such a nation-wide increase in prices could cause such an even gain for every region in a month when even the varying effect of the weather and trade conditions would be enough to keep all regions from having a parallel increase in sales.

More difficult to see are the reasons for the sudden, monthly increase of 60 percent in wholesalers' sales in the Mountain States. Most likely factor is the increasing supply of goods available to wholesalers in those states.

Unlike sales volume, inventories of electrical goods were not evenly distributed among the nine regions. Although, for the country as a whole, stocks increased 4 percent from the November level, such regions as New England had a 14 percent gain, the South Atlantic states suffered a 7 percent decrease, and the West South Central just held its own even though its sales were below the national level.

Compared to December 1945, only the South Atlantic states reported inventories far below the level of the country. Although stocks were 188 percent ahead in December 1946, the national figure was 230 percent.

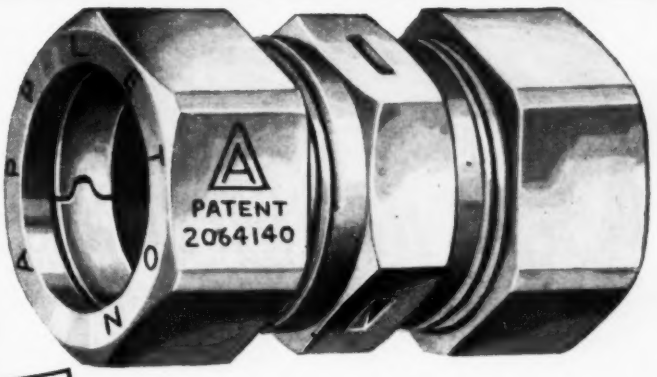
Figures in this table apply to the geographic divisions as outlined and numbered in color on map above

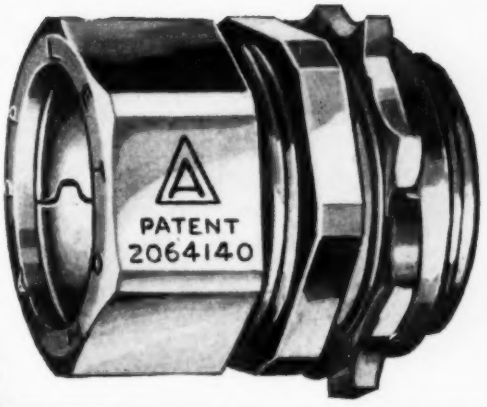
SALES December 1946 Compared in % with		Trading Region (See Map)	INVENTORIES December 1946 Compared in % with	
Nov. 1946	Dec. 1945		Nov. 1946	Dec. 1945
130	214	1	114	219
137	251	2	105	240
125	235	3	106	263
128	232	4	102	232
131	197	5	93	188
132	201	6	*	*
128	210	7	100	214
160	219	8	110	231
136	237	9	107	219
131	**226**	For **U.S.A.**	**104**	**230**

*Insufficient Data

With the ending of the war industry in those states, it was natural that there would be a slowing down in the ordering of industrial supplies. For the same period, the industrial Middle Atlantic and East North Central states showed the largest increase in inventories, reporting 240 and 263 percent increases in stocks respectively.

ALL SIZES UNDERWRITERS' LABORATORIES APPROVED





LISTED UNDER REEXAMINATION SERVICE — UL — UNDERWRITERS LABORATORIES

File E14815.

L6. November 1, 1946

Appleton Electric Co.,
1701-29 Wellington Ave., Chicago 13, Ill.

Electrical Metallic Tubing Fittings.

Machined-steel and malleable-iron fittings with split steel clamping ring, for electrical metallic tubing ½ to 2-in. sizes incl. Couplings, Cat. Nos. 95T050*, 95T075*, 95T100*, 95T125*, 95T150*, 95T200*. Connectors, Cat. Nos. 96T050*, 96T075*, 96T100*, 96T125*, 96T150*, 96T200*.

*Indicates suitability for raintight and concretetight applications.
Marking: Listee's name, letter "A" in a triangle, or "Appleton."

Listed—Reexamination Service.

See description of Reexamination Service on guide card.

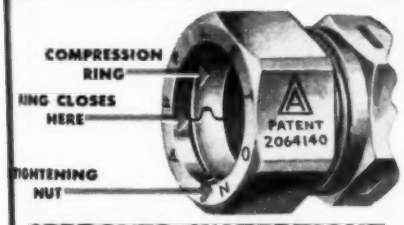
This card replaces E14815 dated June 25, 1946.
This card is issued by Underwriters' Laboratories, Inc.

PRINTED IN U.S.A.

APPLETON COUPLINGS and CONNECTORS

FOR ELECTRICAL METALLIC TUBING

...With Hexagonal Tightening Nuts That FIT the Wrench



APPROVED WATERTIGHT

Appleton Couplings and Connectors are equipped with concave, piston-ring-type split compression ring. Tightening nut closes ring securely to tubing, forming rigid, watertight connection.

SEND TODAY

Big Appleton Catalog, illustrating and describing more than 15,000 types and sizes of wiring equipment, gladly sent FREE, on request, to any user of such material.

Appleton pioneered in the development of precision-made Couplings and Connectors that form a rigid, permanent, approved-watertight connection in electrical metallic tubing.

Appleton Couplings and Connectors meet fully and exactly every requirement of the industry for quick, easy installation and long service. They embody every possible improvement. All sizes are Underwriters' Laboratories Approved. Users everywhere have found it pays to specify them on every fitting order.

All sizes have hexagonal nuts, and hexagonal center sections, which are easily held rigidly with a wrench while tightening. Connectors have high knock-out closing shoulders, and are equipped with bonding-type locknuts which fasten securely to outlet boxes, panel boxes, and other equipment.

Like all of the 15,000 fittings in the COMPLETE APPLETON LINE, Appleton Couplings and Connectors are "STANDARD FOR BETTER WIRING!"

Sold Through Electrical Wholesalers

APPLETON ELECTRIC COMPANY

1734 WELLINGTON AVENUE • CHICAGO 13, ILLINOIS

Branch Offices: NEW YORK, 50 Church Street • DETROIT, 7310 Woodward Avenue • CLEVELAND, 1836 Euclid Avenue • SAN FRANCISCO, 655 Minna Street • ST. LOUIS, 420 Frisco Bldg. • LOS ANGELES, 100 North Santa Fe Avenue • ATLANTA, 724 Boulevard, N. E. • BIRMINGHAM, 6 N. Twenty-first Street • MINNEAPOLIS, 305 Fifth Street, S. • PITTSBURGH, 414 Bessemer Bldg., BALTIMORE, 100 East Pleasant Street • BOSTON, 10 High Street • DENVER, 1509 Seventeenth Street • PHILADELPHIA, 1017 Cherry Street

Resident Representatives: Cincinnati, Dallas, Kansas City, Milwaukee New Haven, New Orleans, Seattle

APPLETON ELECTRIC PRODUCTS

APPLETON

DUIT FITTINGS • OUTLET AND SWITCH BOXES • EXPLOSION-PROOF FITTINGS • REELITES

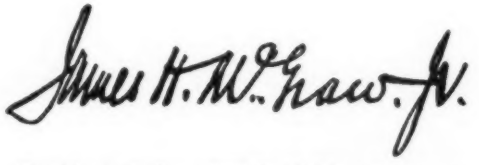
An Announcement of Importance

During recent years the electrical industry has expanded with a speed that can be matched by few others. The war accelerated the striking development that was so evident in the thirties and the postwar years surely will see this trend continued. Edison was born only one hundred years ago. It was nearly the end of the nineteenth century before his inventions, and those of his contemporaries, were put to wide use. Now, the electrical industry is one of the giants of our economy. Its achievements still reflect the romance of scientific pioneering as well as the hard practical values that count for so much in peace or war. In the whole electrical field there can be nothing stuffy or reactionary. It still displays all the daring and eagerness of youth.

Since 1874, we of McGraw-Hill have been intimately associated with the electrical industry and have published magazines to serve every section of it. Always we have insisted that these magazines must anticipate the changing conditions of their fields. This has meant that each editor must offer leadership to his readers; and, of equal importance, must tailor his editorial content to the skills and interests of those readers.

I feel very strongly that the title of a magazine also should be modernized as changes in its scope make that desirable. Whenever possible, the title should describe the scope of the editorial content and the activities of the readers whom it serves. This is only fair to those who subscribe to our publications and to the manufacturers who advertise in them.

With all this in mind, I am pleased to announce that Electrical Contracting now has been renamed *Electrical Construction & Maintenance*. This will be effective with the March, 1947 issue. Under its new name, I am sure that this fine publication will continue to serve its readers, and the electrical industry, of which they are a part, in the best traditions of this Company.



President, McGraw-Hill Publishing Company

TO THE ELECTRICAL INDUSTRY

As the electrical industry has grown to maturity, the electrical construction and maintenance segment has faced increasingly specialized problems. Only a generation ago, almost any wiring job could be handled by reasonably skillful tradesmen. Now, the design and installation of a major electrical system in an industrial plant, an office building, or a hospital involves a high level of technical knowledge. And this segment of the industry is concerned not only with all sorts of interior wiring, but airport electrical installations, highway, tunnel and bridge electrification, and dozens of other major applications of electrical apparatus, as well. It has expanded in step with the great electrical industry as a whole. There has developed, in this process, an electrical *construction* industry.

Then there is the profound change which has taken place in industrial plants as they have become highly electrified. Where twenty-five years ago almost any ingenious mechanic could take on the job of installing a few fixtures or wiring a motor, now we find a need for advanced technical skill and large crews of electricians to maintain the modern factory electrical system. The technician in charge of the electrical department, whatever his title, must be a thoroughly competent electrical specialist.

Over the years, Electrical Contracting has successfully served the construction men of the electrical industry. It has grown with them, and its editorial interests have expanded to encompass all the normal activities of electrical construction firms and their personnel.

At the same time, this editorial material has proven to be of very direct interest to the chief electricians in charge of industrial electrical maintenance. And this is not surprising. The men who work in the electrical construction field and those employed in factory electrical departments have much in common. They work with the same kind of apparatus and supplies, and the same tools, use the same techniques, and talk the same trade language. Electrical Contracting has served these common interests so well that today it has nearly as many subscribers in industrial plants as it has in its original construction field.

In adopting the new title—*Electrical Construction & Maintenance*—we are recognizing these broad changes, and conforming with the scope of our editorial content and our readership. We are being realistic about changes which have already taken place. There are no fundamental changes being made in the publishing formula of this magazine, in its editorial concept, or in its circulation characteristics.

This is evolution, not revolution. And in that sense, we look forward to a future of service to the electrical construction and maintenance industry, and to the privilege of growing with it.

Lee H. Hill

Publisher, Electrical Construction and Maintenance

A McGRAW-HILL
PUBLICATION
330 W. 42nd STREET
NEW YORK 18, N. Y.

ELECTRICAL CONSTRUCTION & MAINTENANCE

formerly **ELECTRICAL CONTRACTING**

UNITED STATES RUBBER COMPANY

SERVING THROUGH SCIENCE

I JUST KEPT LOOKING UNTIL I FOUND IT!

Laytex (Type RU) branch circuit wire is *different*—and *better.*

It is smaller in diameter than any other rubber insulated building wire. It's lighter in weight—easier to handle.

Furthermore—it is insulated with 90 per cent unmilled, grainless natural rubber, and has perfectly centered conductors.

And last—but not least—it leads the field in physical and electrical properties.

RU wiring with RU?

Small diameter • Light weight • Natural rubber insulation Perfectly centered conductors • High tensile strength • High dielectric strength • Flame retardant, moisture resistant cover

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U.S. Laytex

Reg. U. S. Trade Mark

ELECTRICAL WIRES AND CABLES

TIME PAYMENTS Electric

ELECTRICAL WHOLESALING
The National Magazine for Electrical Wholesalers And Their Salesmen
Established 1920

Sound financing that is tailored to meet the specific needs of the electrical distributor and dealer must include services that will stimulate profitable operation

By John L. Busey*

President,
National Electrical Wholesalers Association
President,
General Electric Supply Corporation

John L. Busey

I AM grateful for the opportunity to represent the National Electrical Wholesalers Association before a group as prominent and important to the life blood of American industry and commerce as the American Bankers Association.

Our industry and our association are both in their youth when compared with the centuries old banking business and your long established association. As youth always must, we can gain much from observing in action your Association which reached its maturity so many years ago.

The N.E.W.A. was organized in 1908 and today has a membership of more than 900 wholesale establishments. These members are engaged in the distribution of either appliances or apparatus and supplies or a combination of both.

The principal function of a distributor is the rendering of *service* both to his manufacturing suppliers and to his customers. This is recognized in the tenets of the Electrical Wholesaler, endorsed by the N.E.W.A. at its last annual convention. They define the services rendered by electrical distributors. In brief, and only in part, they are:

1. Maintenance of adequate stocks in marketing centers.
2. Promotion of appliances by a planned specialty sales program.
3. Training of retail sales personnel.
4. Keeping manufacturers informed of market requirements.
5. Performance of credit and collection functions.
6. Assumption of investment and obsolescence risks.
7. Assistance in product servicing and training of retail appliance re-

pair personnel in the local area.

This is by no means the full story but will serve to give you an indication of our responsibilities in the electrical appliance industry.

I know you are interested in the volume of appliance business we expect to achieve as an industry during 1947 and our guess with respect to how much installment financing will be represented.

In the days before we all suffered from the present degree of labor strife, the preparation of reliable budgets and forecasts of future business were made difficult by the many variable factors that beset our commercial and industrial life. Now with industry becoming daily more and more interdependent, the threat of work stoppages by labor in any one industry is likely to affect the production possibilities of many others. The present state of labor unrest or rather uncertainty of behavior, makes an intelligent estimate of anticipated volume all the more difficult. Nevertheless, to plan ahead we must make some forecasts and this is what we look for in 1947—

We expect an appliance and radio sales volume in terms of retail sales levels of about three billion dollars during 1947. Of this amount more than two billion should represent refrigerators, home freezers and other major appliances, radio and television sets with sufficiently large unit value to qualify for time payment plan financing.

In prewar years between 65 percent and 70 percent of sales of these appliances and radios were financed under time payment plans. We estimate that at present, somewhere in the neighborhood of 10 percent of such sales are made under extended terms of payment. By the end of 1947 we think this percentage will be approaching 60 percent or more.

The manufacture of appliances is, and has been, for many years a mass production industry and calls for corresponding mass distribution. Unless distribution can be maintained at high levels the economies made possible by modern production methods will be lost. Installment selling has been one of the most important factors in maintaining a high level of purchasing of appliances by consumers. You, as bankers, know better than we, what a high percentage of our population even today have savings of only nominal amounts and under more normal circumstances virtually no savings at all. Without installment purchasing this most important mass market could not be sold high unit value articles and the manufacture of electric refrigerators and other appliances could not, in consequence, be on a mass production, low-cost basis.

Today the nation's families hold greater savings than heretofore as the result of war circumstances and this tends to reduce the present demand for time payment facilities. However, the nature of the demand for electrical appliances has changed since the prewar years and we will feel the effects of it when factory production has reached a higher level.

Prewar, the housewife set her heart on acquiring a new refrigerator, a new electric range, or a new washing machine. She looked on them as individual things to obtain as her financial condition permitted. However, today, as a result of changed thinking—induced in large part by an outstanding advertising job—the housewife thinks in terms of converting her home into an electrically-powered living place where her difficult household tasks are performed for her electrically in a planned and coordinated kitchen and home laundry.

To achieve this goal, she must think in terms of buying several appliances. Therefore, whereas, prewar she was interested in financing the purchase of a $79.95 washing machine, in future she will want an automatic washer, an electric clothes dryer, an electric ironer, a refrigerator, a range and an electric sink that washes and dries her dishes and disposes of her kitchen waste. On this basis she will be thinking in terms of dollar purchasing that requires financing on a scale comparable to that customary in the automobile business. Even with wartime savings available, such a personal buying program will usually require time payment financing. Even if the housewife is content to acquire her appliances over a period of time, she will want to use time payment facilities to permit her to buy two appliances for immediate delivery rather than one.

To give you an indication of the great interest of the women of this nation in this electrical home idea, I will tell you of the experience of one manufacturer with a wartime advertising piece. In national magazine ads a 24 page booklet showing electric kitchen plans was offered to readers who would send in a coupon together with 10c in coin. The original printing order for this booklet was 100,000 copies. Before the activity was completed 2,500,000 copies had been printed and *sold* for 10c a copy. Mind you—2,500,000 people were willing to pay money just to be told the story of the electric kitchen.

This is one field of financing in the appliance business where the banks have a decided advantage over the finance companies in certain respects and where they can make a very real contribution. I have reference to the long term financing of these complete electric kitchens and home laundries in new homes. A number of banks and some insurance companies have promoted the so-called "package mortgage" for new home construction. Under this plan the cost of the major appliance is added to the cost of the new home and one overall mortgage loan is granted. This represents an important field for investment by banks in those states where legal requirements permit them.

In most cases in the past the "package mortgage" has been used in connection with the sale, by large volume builders, of homes complete with adequate electrical wiring and appliances. This is smart business from the builders' standpoint and a good source of sound investment for the banks. However, a large number of the houses to be built in the future will be constructed one at a time by small builders based on specifications of the purchaser. To promote the "package mortgage" in this market the banks should work with the local dealer who will sell the appliances. If you will assure him that you will accept a "package mortgage" deal he will have an excellent tool with which to promote the sale of a full contingent of labor-saving appliances in individual homes under construction. In this

field I tnink the banks must take the initiative.

You should not overlook the fact that there are today 31,000,000 wired homes in America of which very, very few have an electric kitchen or anything approaching a respectable home laundry. An electric kitchen and complete home laundry in future will be just as much standard equipment as automatic heat has become today. As a result there will be a tremendous demand for the remodeling of existing homes to provide these advantages.

After the increase in property values during the war, there is today a wide spread between unpaid mortgage loan balances and resale values of homes purchased prior to 1941. Granting that present day prices will be reduced materially when the rate of new construction is more satisfactory, I think we can still expect values to level off in excess of those in 1940 and the decade preceding. If this is so, you will find that mortgage principal reductions since 1940 together with increased property values will allow sound financing of remodeling by additions to present existing mortgage loans, particularly when the value of the appliances is also taken into account. If, in your State electric appliances can be included in a real estate mortgage, your opportunity of developing this outlet for investment should be tremendous.

However, there are many problems involved in arranging for such financing. The mortgages are held by so many banks, insurance companies, mortgage companies, individuals, etc., that a general promotion of such a program by one bank or group of banks would appear to be impractical. However, if your bank can overcome the many technical difficulties involved in amending mortgages and can eliminate or reduce some of the costs usually connected with such action, I think you can develop an important investment market among mortgagors who are now indebted to you and have proven their ability to meet monthly obligations.

In connection with the subject of home remodeling, I should mention the problem of adequate wiring. A very high percentage of existing homes are not wired to carry the load of a full contingent of electrical appliances and proper home lighting. The National Adequate Wiring Bureau, sponsored by the electrical industry, has done much to promote the idea of rewiring homes to meet modern requirements. A series of booklets have been made available to members of the ABA for their use in soliciting small loans to finance such remodeling. One of these booklets, entitled "It's Easy to Finance Home Improvements," directs the home owner to go to the bank's home loan officer for assistance and advice. This is a field in which the banks can be of great service both to the home owner and our own industry.

So much for our expected volume and the need of time payment plans as a necessary feature of appliance selling. I would like now to give you a few ideas of what we as distributors think is required of the financing agency under the time payment plan.

First, we must recognize that a time payment plan is a basic sales tool in the retail selling of major appliances, radios and television sets. As such it must be adapted to the overall sales activity and promotion program of the manufacturer, the distributor and the dealer. A uniform plan for a given situation obviously operates most satisfactorily from the distributor's viewpoint. This can, and is, offered by the finance companies. May I ask you gentlemen, can the banks develop a counterpart?

Second, as a sales tool, installment financing must be used in varying degrees under varying circumstances. When sales are brisk and volume is easily obtained, terms can be relatively short and down-payments relatively large. However, when sales volume falls off, and the consumers' income declines, terms must be extended as long as possible and down-payments reduced as low as possible within reasonable limits. Such an approach by a bank would require quite a change in basic thinking since normally the

Without access to ample funds at reasonable rates the installment purchases of major electrical appliances could not be handled by many wholesalers or their dealers. The smart salesman must study the various financing plans available to his dealers from local financial institutions and be able to discuss them intelligently with the dealers.

LET'S PLAY FAIR

with Santa Claus

Santa Claus, the founder of the Christmas Tree Lighting Industry, couldn't have been very happy over trade conditions last season . . . for in spite of near-record production, demand far exceeded supply and in some cases the public had to pay unreasonable prices to get the strings, lamps, and other Christmas lighting equipment it so much wanted.

This spirit of "get while the getting is good" on the part of just a few has hurt the entire Christmas Lighting business, all the way back to the manufacturer, and no right-thinking person wants to see it repeated in 1947. Therefore, the Decorative Lighting Guild of America* makes a pledge . . . and a plea.

Pledge . . . The manufacturers listed pledge themselves:

(1) To keep prices of the equipment they make to the absolute minimum consistent with labor and material costs, and

(2) To distribute their equipment and their supply of lamps equitably among recognized marketing channels.

Plea . . . . There will be more Christmas lighting equipment in 1947 than in any previous year . . . maybe not enough to fill *every* need, but enough to make it a profitable business without any "upping" of prices. Dealers and Distributors are urged, therefore, to join with DELGA to help "hold the line" . . . to combat in every possible way any attempts that a few opportunists *may* make to profit unfairly from the great demand for Christmas Lighting this season. A business that stems from the Spirit of Christmas cannot do other than *play fair with Santa Claus.*

****The Decorative Lighting Guild of America comprises most of the companies who make Christmas lighting equipment and distribute Christmas tree bulbs. They are:***

ABBOTT MANUFACTURING CO.
Summit, N. J.

C. F. ABBOTT CO., *East Orange, N. J.*

ASSOCIATED MANUFACTURERS' CO.
San Francisco, California

CLEMCO, INC., *Hillside, N. J.*

GEM ELECTRIC MANUFACTURING CO.
Brooklyn, New York

THE GLOLITE CORPORATION
Chicago, Illinois

GOOD-LITE ELECTRIC MFG. CO.
Bridgeport, Conn.

MAJESTIC ELECTRIC MFG. CO.
New York, New York

THE MUTER COMPANY
Chicago, Illinois

NOMA ELECTRIC CORPORATION
New York, New York

PEERLESS TREE LIGHT CO.
Brooklyn, New York

RADIANT MANUFACTURING CO.
Seattle, Washington

RAYLITE ELECTRIC CORPORATION
Bronx, New York

ROYAL ELECTRIC CO., INC.
Pawtucket, R. I.

THOMAS IMPORT COMPANY
New York, New York

UNION INSULATING COMPANY
Parkersburg, W. Va.

THE DECORATIVE LIGHTING GUILD OF AMERICA

2116 Keith Building ***Cleveland, Ohio***

DELGA

tendency is to curtail terms and credit in difficult times and extend them in good times. As a depositor I find it difficult to criticize such a policy. However, this kind of financing is necessary to carry the appliance business through a period when the consumers' income has been seriously reduced. Can the banks divorce their installment credit operations from their normal business to the extent that would make this possible?

Third, we need financing agencies that will accept a reasonable number of borderline risks in order to serve our dealers adequately in all areas. In certain areas it might be good business for a finance agency to accept no conditional sales contracts. However, the dealer who serves such an area needs just that kind of assistance to obtain any volume from that market. Collection methods must be adjusted to suit the territory involved and higher loss ratios must be expected in certain markets. To meet the commercial requirements of the distributor and dealer, the finance agency must accept these risks and look to its overall results for a satisfactory profit.

Fourth, the financing agency must be willing to judge a dealer not only on his net worth but to a large extent on his character and sales ability. An active dealer with relatively little net worth will have a large volume of conditional sales contracts to dispose of during certain seasons of the year. Refusal to accept these contracts, because the total paper purchased during a short period appears excessive, will seriously handicap the dealer. Such a policy in less favorable times than the present would, of course, result in some losses since dealers are not always financially able to repurchase delinquent paper. However, that's the nature of the business. If you want the discount rates enjoyed by the finance business you must accept the losses that go with them. Can the banks adopt such a commercial viewpoint?

Fifth, we have an interest in aiding the dealer in maintaining contacts with his customers. The individual appliance store does not have the natural store traffic enjoyed by the merchants of soft goods, foodstuffs or similar products. Some of the progressive finance companies permit the dealer to accept installment collections in his store. This draws the customer into the store at periodic intervals and exposes him to other appliances on display. We think this is an important factor. Would the banks be willing to make similar arrangements? I do recognize that there is some hazard involved in this procedure since a dealer may not remit his collections promptly or intact. That has happened in the past and will undoubtedly happen again. What we must do is weigh the disadvantages from a strictly financial standpoint and the advantages from a commercial point of view. At the same time, I am not unaware of the importance to the bank of similar traffic on its banking floor, which might well be lost under such a setup.

Sixth, the financing agency must assume responsibility for training wholesale and retail salesmen in financing methods and routines and sell them on the merits of the plans offered. You must recognize that even today there is some fear of time payment plans and a considerable amount of misunderstanding or rather lack of understanding concerning them. It is important to the dealer, the distributor, and the financing agency that the retail salesman who contacts the consumer has an adequate understanding of the finance plans in effect and an appreciation of whether they are sound, equitable to the customer, and justify their cost. The retail salesman can best obtain this understanding from representatives of the financing agency who are thoroughly versed on the subject.

The national finance companies work with the distributor organization in presenting this training, in conjunction with dealer sales meetings conducted by the distributor. Under this arrangement, the finance story can be fitted into the overall sales presentation and receive better acceptance. Can a bank work together with a distributor in this manner since usually the same territory would not be served by both the bank and electrical wholesaler? That is a problem that I assume you can overcome.

Seventh, our dealers must have inventory financing facilities — and flexible ones. This is a very essential part of the appliance distribution business and is generally handled under the so-called "Wholesale Floor Plan." This plan generally permits a dealer to carry a display and warehouse stock for 90 days with only a 10 percent investment, and a number of renewals if further payments are made. Because of the seasonal nature of the demand for some appliances, we as distributors must arrange for special floor plans from time to time during the year in order to move certain products out of our warehouses before the active retail selling season begins. With a national finance company we can arrange one plant that will operate for all our dealers. How the banks could operate with us on such an easy basis, I do not know as yet.

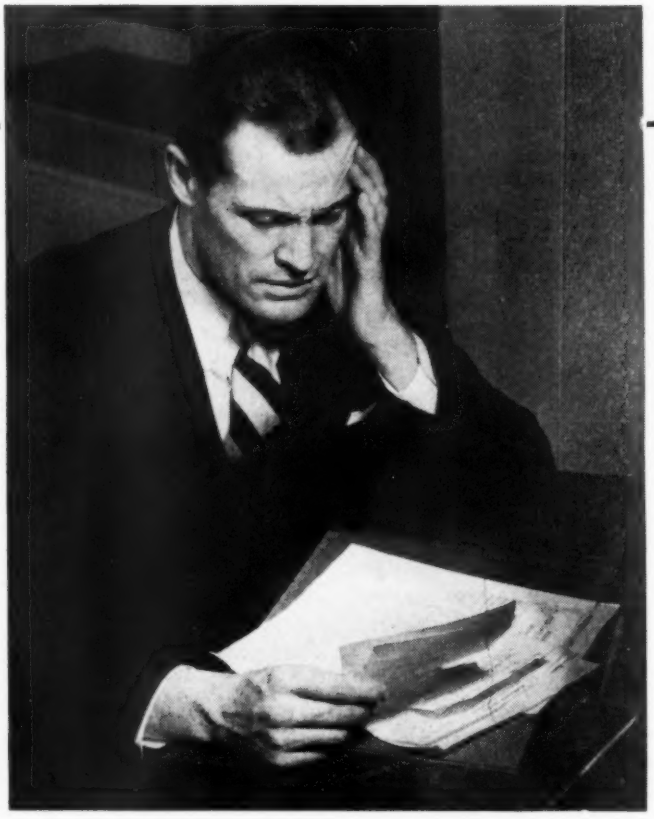
If a distributor's dealers all obtain their floor plan financing through one agency the clerical work of the distributor is reduced to a minimum. Can the banks arrange similarly simple procedures?

I don't want you to conclude from some of my comments that I am trying to discourage the banks from entering or expanding their participation in the appliance installment finance business. My purpose has been to point out certain aspects of the business that from our standpoint are important and concerning which we think you should have knowledge if you plan to enter the appliance finance picture on an important scale.

Prewar you furnished the bulk of the money for installment purchasing through loans to the finance companies. But appliance installment financing is more than the furnishing of money—*it is the furnishing of a service.* To the agency that furnishes the service best suited to the needs of the consumer and the industry should go the bulk of the business. If that describes the service your bank can offer, then to your bank should go an important share of the appliance time payment financing business in its community.

**An address before the Consumer Credit Conference of the American Bankers Association, St. Louis, January 25, 1947.*

Understand The Finance And Tax And You Can Help Them Grow



The small business man is faced with many handicaps in securing capital for his organization. Careful analysis of his operation and improvement of it wherever possible will aid him to become a better credit risk.

WHERE can I get capital funds to start my business? How and where can I get a long-term loan to expand my operations? What type of loan is most appropriate to my circumstances? What are the tax liabilities of my proposed business? What form of organization will minimize taxes in my situation? How can I handle the tax compliance problem most effectively?

These are typical of the questions presented by small businessmen to the Finance and Tax Division of the Office of Small Business. They show that small businessmen are concerned with having an effective solution. They do not show clearly the dual problems underlying their solution. The problems have a basis, on one hand, in the financial structure of our economic organization and, on the other hand, in the management know-how of business operation.

Financing Difficulties

Inability to obtain adequate financing has long been recognized as one of the more serious problems affecting small business enterprise. While a well-established small business has usually been able to obtain short-term credit in a more or less satisfactory manner, it has had difficulty in obtaining adequate long-term financing.

The situation facing a new business enterprise has been well-nigh hopeless when considered in terms of outside capital. This situation has not been solved adequately. Small business continues to have difficulty in obtaining capital without incurring hampering restrictions or competitively unfavorable terms.

Where a multi-million-dollar security issue can be floated for the comparatively low cost of 2 to 3 percent of the proceeds, an issue in the thousands of dollars can be handled only at a cost ranging from 10 to as much as 20 percent of the proceeds. What is worse, even the well-established small corporations will be able to sell on the average only one-fifth of their security offerings.

This means that securities markets are uncertain as well as expensive sources of funds. Also, it must be remembered that the vast majority of small businesses are unincorporated and must use some less formalized means of financing.

In years gone by, the primary sources of funds for unincorporated small enterprises, particularly new enterprises, were individual investors for long-term capital and commercial banks for short-term funds to be used for working capital purposes.

Taxation and Capital

The high level of personal taxation in recent years has made individual investors unwilling to take the risks incident to many small enterprises. It must be admitted that the failure rate in small business is high and the certainty of success for any new venture is not great.

The reasons for the high failure

Problems Of Your Small Customers Into Bigger Buyers—Better Payers

By J. C. Dockeray*

rate in small enterprise are numerous and not the least important is inadequacy of the proprietor's capital.

However, there is little encouragement to invest in a new undertaking when taxes will take the larger portion of the proceeds if the venture is successful and the investor must accept all the loss if the venture fails. Moreover, the force which leads to the initiation of new enterprise, the desire to exercise free and independent initiative, makes the enterprise prefer loan capital to that furnished by partnership.

Commercial Banks as Source

This leaves the commercial banks as the primary source of borrowed funds of all types.

With the advent of the depression of the thirties, this source became less satisfactory. Public criticism leveled at bankers in the early part of the depression, losses incurred due in part to highly fluctuating character of small business, restrictive bank examination policies, availability of Government bonds, and many other factors, have all operated to create a reduction in business loans by banks.

Under the circumstances the bankers could hardly be blamed for preferring Government bonds, with their perfect safety and no need for extensive supervision, to small business loans having a considerably greater risk factor and an important supervision cost.

The need for more adequate servicing of small business is now fully realized and today bankers are planning programs to expand their facilities for financing small businesses, even discussing credit pools for sharing risks and handling loans outside the lending capacity of individual banks.

Not only have such factors resulted in a sizable decrease in bank loans, but small business has been charged a considerably higher rate of interest than has large business. The bulk of the loans to large business are at rates of interest under 2 percent. The majority of the loans to small business are at rates in excess of 5 percent.

A Federal Reserve System study showed that borrowers with assets of over $5 million paid 1.8 percent; borrowers with assets under $50 thousand paid 5.5 percent. Problems of risk and the costs of supervision may very well justify this difference in rates, but the difference exists and constitutes a competitive factor of some significance.

Terms of Loans

Apart from the problems of availability and costs of bank loans is the problem of term of loan.

The inherent characteristics of commercial banks are such that only a limited amount of their funds can be made available for long-term loans. Commercial banks are institutions dealing principally in demand credits.

As such, they are restricted both by law and sound operating principles in the amount of funds which they can place on a long-term basis and of this amount small business usually receives a minor portion.

This is shown in the figures of a special survey prepared by the Federal Reserve Board of commercial and industrial loans made by some 5,300 member banks in the spring of 1942.

It was found that out of the total volume of some $2.2 billion of loans

made during the month under review, only 45 millions or 2 percent of the total were long-term. Nearly all of this relatively small amount of long-term credit went either to the large businesses or to a few small ones which were in a superior financial condition.

In the words of the Federal Reserve Board report, "...small firms obtain term loans (loans of over 1 year) only when they have a very high credit standing, and then the loans are fairly substantial in amount. For this reason, term loan rates to small borrowers are below rates on shorter paper, contrary to the usual time differential, reflecting the highly selected quality of small firms that obtain term loans as compared to the bulk of small firm borrowers."

Positive Action Is Indicated

Some type of remedial action to correct this situation appears necessary. Adequate capital available upon reasonable terms is a requisite if small business is to maintain its proper and desired place in the economy, but so far there has been no agreement as to the most appropriate means of action.

Recently, the bankers have undertaken a program of concerted action aiming at a more adequate servicing of the small business segment of the economic community.

The program plans to accomplish its purpose through development of a wider appreciation of bank responsibility to small business plus the establishment of credit pools to share risks and handle loans which are outside the lending capacity of individual banks. The success of this program will materially alter the financial situation of small business.

Business Finance Program

The Office of Small Business finance program contemplates a two-fold approach to the financial problems of small business.

One approach deals with the financial management problems of the individual small business enterprise. The other approach involves the analysis of the underlying economic factors affecting the financial situation of small business.

As indicated above, many of the financial problems of small business arise from the inherently unstable character of new and small enterprises during the first few years of their business life.

This lack of stability is due in large measure to the complexity of management problems facing a business manager who must carry the entire load with little, if any, use of management specialists.

As a consequence, he may be able to give an insufficient amount of time and thought to his financial problems and the ways in which such problems are interrelated to the many other problems faced by his business from day to day.

Information Sources

Small businessmen in this category need a readily available source of information geared to the nature of small business operations. Information should be available to enable the businessman to select the type of loan or other financing that is appropriate to his circumstances.

He should know the types of loans available and where and how they can be obtained most readily.

He should be able to determine that his problems, which appear to be financial in source, may in fact be basically problems of effective management or production or sales.

He should have a source of assistance in doing this, for it is important to determine in each case the true nature of the difficulty before writing the prescription for the cure.

Any step which the Office of Small Business can take to assist the small businessman to become a more attractive credit risk through the improvement of his operating techniques will directly aid him in the solution of his financial problems.

As preliminary tools the office has prepared two leaflets on financial matters. One outlines briefly the basic information which prospective borrowers should be able to present in asking a bank for a loan.

The other outlines the procedure to be used in dealing with the Reconstruction Finance Corporation should bank credit not be available. A third and more comprehensive publication is entitled, "Credit Sources for Small Business."

Review of Financial Problems

In the second approach this office will make a continuing review of the financial problems of small business. The review will have as its basic purpose the determination of the fundamental financial requirements of small business. It will endeavor through the use of available information to determine what small business needs in the way of capital funds, and the extent to which deficiencies in availability or terms may exist.

It is planned to investigate

Adequate capital available to the small business man on reasonable terms is a must if small business is to maintain its rightly earned position in the distribution field.

through the field offices of the Department of Commerce those questions concerning which information is lacking, or to bring previous investigations up to date. As small business needs develop, it will be possible to develop recommendations designed to meet those needs.

Many recommendations may be primarily educational in nature and constitute little more than encouragement to small businessmen to improve their methods or to existing financial institutions to play a more active part within their present powers.

The necessities of wartime and postwar Federal budgets have created a fiscal situation making high and burdensome taxation at least by prewar standards, likely for years to come.

This will be burdensome to all business, both large and small, and for all individuals, both wealthy and poor, but for no group has burdensome taxation greater significance than for the small units of business enterprise.

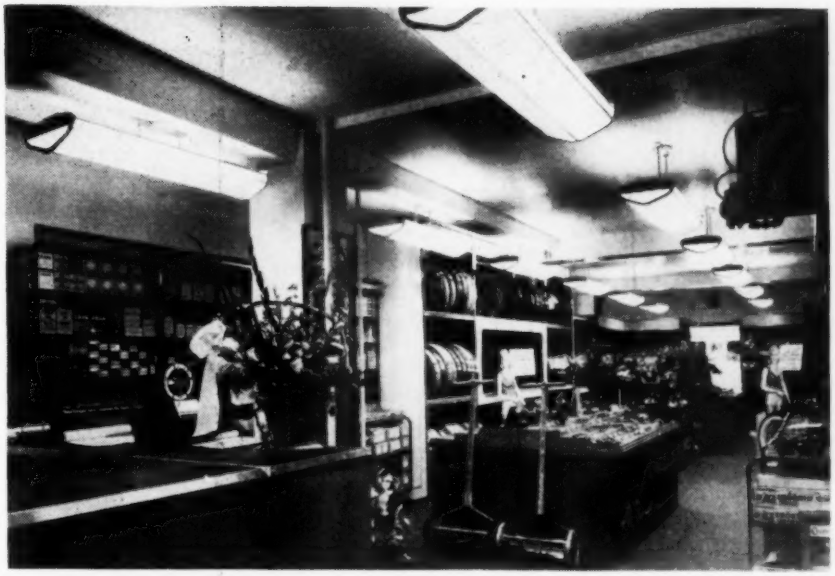
All business, both large and small, must grow in order to enjoy a healthy economic life. Economic survival is related to ability to grow and to adapt to the ever-changing environment.

Most business grows in part from within through the retention of earnings but due to its financial situation small business must grow principally from within. Outside capital has not been available on favorable terms or in adequate amounts. For this reason high tax rates limit the ability of small concerns to expand.

The net earnings of small business fluctuate more widely than do those of big business. This leads to the payments of larger amounts of taxes over a period of years by small business than would be true if its earnings were more stable.

This situation is especially serious for unincorporated enterprises as they pay taxes under the highly progressive personal income tax rates. Since small business is typically unincorporated, it faces a real problem in this particular.

A satisfactory method of averaging income subject to taxation over a number of years must be developed if businesses with fluctuating characteristics are to be taxed comparably with businesses having stable income.



With many returned veterans optimistically opening up their own small businesses, it should be pointed out that inadequacy of proprietor's capital is one of the chief reasons for the high failure rate in small enterprise. Edwin F. Guth Co. photo.

The very complexity of the tax structure is itself difficult for small business to understand. Each business unit is subject to many separate taxes, Federal, State and local, each tax having its own set of regulations. Many of the regulations are complicated in nature and difficult for anyone other than a tax expert to understand fully.

Large business meets this situation by the employment of specialized tax experts or tax counsel. Small business finds equivalent services desirable, even necessary, but relatively much more expensive.

The Office of Small Business is aware of these and other tax problems affecting small business enterprise. Again, it is believed that a two-fold approach to the problem is appropriate.

One approach is educational in nature and calls for a simplified treatment of the typical tax problems faced by small business. Methods of complying with tax laws will be explained and the tax advantages of alternative business actions clarified.

As a preliminary step in this phase of the program, a brief leaflet has been prepared showing the important types of taxes paid by small businessmen, and official sources for technical information.

The other approach calls for a thoroughgoing and objective analysis of the tax situation of small business by size and type and in comparison with the tax situation of big business.

It is believed that through a study of this type, supplemented by field surveys to fill in the informational gaps, it will be possible to clarify and simplify some of the tax problems bothering small businessmen. Tax compliance problems may be made less difficult and possibly the actual burden of Federal taxes on small business could and should be modified.

The true nature of the small business tax picture must receive this thorough analysis before comprehensive recommendations can be made for correcting the situation and in order to provide a basis for representing the small business point of view in the formation of tax policy.

The dictates of Government fiscal necessity must come first, but it is not good tax policy to put disproportionate burdens upon any essential portion of the economy. And small business is an essential portion of the individual enterprise system.

**Finance and Tax Division, Office of Small Business, U. S. Department of Commerce.*

The meaning of the RLM label to *BUYERS....SPECIFIERS....SELLERS* of Industrial Lighting Equipment

This RLM Label affixed to an industrial lighting unit certifies that the unit has been manufactured to conform to RLM rigid specifications. RLM Specifications are drafted by a Technical Committee, guided by the findings of the *Illuminating Engineering* Society, the recommendations of the *Better Light—Better Sight Bureau,* and other recognized industry associations. These factors that provide (1) *Economy through more* Light at No Extra Cost, (2) Low Maintenance Cost and Long Life.

Whether you buy or sell industrial lighting, play safe by specifying lighting equipment built to conform to up-to-the-minute RLM Specifications and bearing the RLM Label. Copies of all the latest RLM Specifications may be secured through any manufacturer using RLM inspection and certification service, or direct from RLM Standards Institute.

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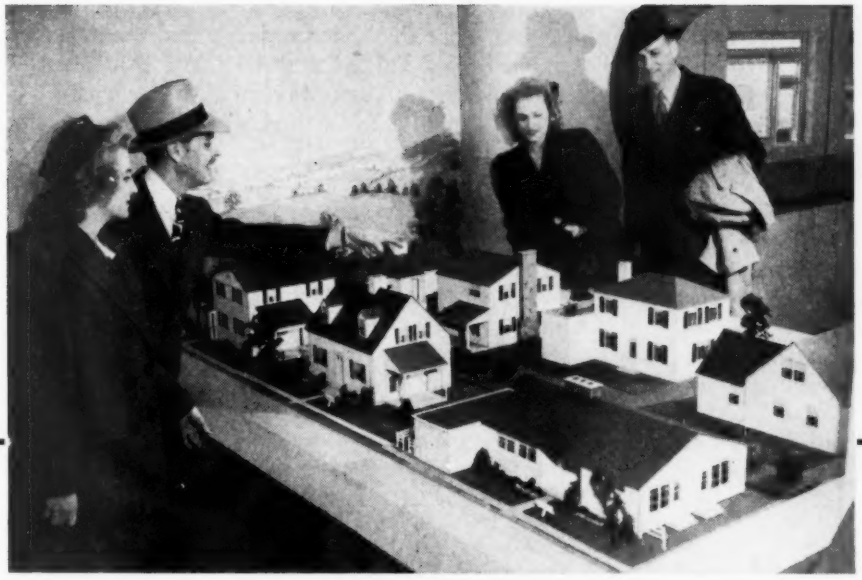


Exhibits such as the one pictured above acquaint people with the best in home design, and modern financing places these homes within their reach. Photo courtesy United Savings Bank of Detroit.

Knowing Good Financing Plans Builds Better Sales For You

Today's plans for financing furnish the salesman an immediate opportunity for sales to the residential construction and retail store modernization markets provided he learns the details of these plans in setting up his method of attack

By William C. Pirie

NOW looming large on the sales horizon are two markets that offer a world of opportunity to the salesman—residential construction and retail store modernization.

Closely limited by wartime restrictions and shortages, the salesman has long been unable to sink his teeth into any real volume of business in these markets. With most of the war-time restrictions now lifted and materials in freer supply, however, those important markets *must* be sought out by the salesman, for both can be depended upon to build up his sales volume and contribute to his earning capacity directly in proportion to the time and effort he expends in cultivating them.

A conservative estimate gives a requirement of approximately one million dwelling units a year for some years to satisfy the demands of the national housing shortage now existing in this country.

Total retail stores—large and small—number nearly two million units and it is safe to say that the majority of the retail merchants operating these stores are contemplating modernization that will put their stores in step with the times and successfully meet the competitive era in merchandising that lies in the not so very distant future.

Even a partial realization of these two markets assures the salesman tremendous sales of electrical supplies, wiring and lighting equipment and appliances.

One fact these markets have in common is that both residential construction and store modernization, in the majority of cases will have to be financed by an outside institution.

Where Salesman Should Start

Spade work, then, for the salesman who is going to get his share of this business can well start by digging out and familiarizing himself with the various plans for

financing construction and modernization that are offered by the financial institutions in his territory. He must find out the scope of these plans and subsequently translate this information into actual orders.

While it is true that the builder of the individual home, the speculative builder, or the builder of the multiple-unit development may have already made arrangements for financing, the salesman can be of real assistance in advising the prospective owner, the architect, the builder or the electrical contractor on the electrical specifications and as to how much of the electrical equipment can be included under the terms of the financing.

Sell Adequate Wiring

Working closely with any or, preferably, with all of these people, the salesman can make sure that provision is made, first of all, for adequate wiring in each and every home. This is the most important consideration in setting up the electrical specifications, for without adequate wiring the home will not provide ample facilities for modern lighting or for full utilization of the many electrical appliances that are available for making it a more pleasant place in which to live.

For instance, in many areas the prospective home owner would want to enjoy the advantages of modern electric cookery. There, adequate wiring service must be provided so that the range can be installed. If not, competitive fuel will do the cooking in the home and the salesman will have lost the sale of electrical equipment required to install the service and also lost the sale of the range.

One fact the salesman must bear in mind when "selling-up" adequate wiring is, that emphasis must be placed on the service it brings into the home—it is not just the sale and installation of so much wire—it is the eventual service that will be rendered to the home owner.

Financing for Store Modernization

Store modernization is so important a factor today, that in many instances it may mean the difference between a profit and a loss—the difference between a going business and a store that is going out of business.

Based on the fact that people like to trade in a store that is cheerful, well-arranged, well-lighted and inviting, the Electrical Association of Philadelphia recently announced a cooperative banking activity to the retail commercial field in the territory covered by the Association.

This activity encourages the retail merchant to modernize and assists him by pointing out to him the places in his store where modernization will return him the biggest dividends on his investment and by designating the banks to which he can apply for financial assistance in improving his store.

Complete enjoyment of the home depends upon the use of today's time-and-labor-saving electrical appliances. Be sure adequate wiring is specified in the building plans so that these appliances can be easily put to work. Hotpoint photo.

It is a program that should be noted and followed throughout the country for, in any marketing area today, store modernization is first on the program of many wide-awake retail organizations.

Program Mutually Promoted

A booklet prepared by the Association carries modernization as its theme and strongly emphasizes the fact that store modernization is a good investment, for people are attracted and will return to the store where it is simple, pleasant and easy to shop. This booklet is distributed both by the Association and the banks participating in the activity. Those distributed by the Association list all banks cooperating in the plan and those distributed by the individual bank carry only the imprint of that one bank.

The booklet brings out that money may be obtained for one or all of the various steps essential to complete modernization and discusses each of the steps.

Adequate Wiring Basic Requirement

Since adequate wiring is the prime requisite of any modernization that is to be done in the store, this receives special stress in the booklet. Without adequate wiring, it is pointed out, the many modern electrical devices needed to streamline the store's operation cannot be put into effective use.

In suggesting a cheerful store it reminds that modern planned lighting is one of the most important improvements that could be made, and it emphasizes that lighting, to be of real merchandising value, *must* be engineered to the store and fitted to its special requirements.

Other factors to be taken into full consideration are the scientific arrangement of the store interior for easily-managed, maximum-buying store traffic. Attention must be given to the location and lighting of showcases and fixtures, or in the case of the food store, to the location and modernity of refrigerated cases for preservation and display of foods.

Air conditioning and ventilation are essentials and the prospect is reminded that these items—along with improved lighting—contribute to the enjoyment and comfort not only of shoppers but of the store personnel as well.

Stressing that the exterior of the store must be particularly inviting, the owner is urged to make his electric sign the first thing that people see when they come down the street. New lighting effects and proper design of windows also can do much to attract the eye of the prospective customer.

Plus Business for Salesman

With the tremendous lift that such carefully planned activities are certain to give, the electrical wholesaler's salesman who is on his toes is in an excellent position to benefit from them.

First, he can easily show the contractor how he can approach the

In a booklet, widely distributed by the Electrical Association of Philadelphia and cooperating banks, are given the various steps essential to complete store modernization. Listed also are the banks participating in the activity.

store owner on the subject of modernization and where necessary direct him to a bank for financial assistance.

Second, he is right on the spot to advise the owner, his architect and his electrical contractor on any electrical changeovers and improvements.

Third, he is then in a position to follow through with the actual sale of supplies and equipment needed.

Salesman Can Initiate Own Program

The salesman who does not have the backing of an association-sponsored program, as just reviewed, will do well to personally initiate a program of this type in his own territory.

Having contacted the financial institutions in his territory the salesman knows those willing to lend financial assistance to the retail merchant who is sufficiently aggressive to modernize his store.

Most banks realize today that store modernization is a *must* and the inability of the merchant to secure needed equipment during the war period has placed him behind the times and whetted his appetite for store improvement.

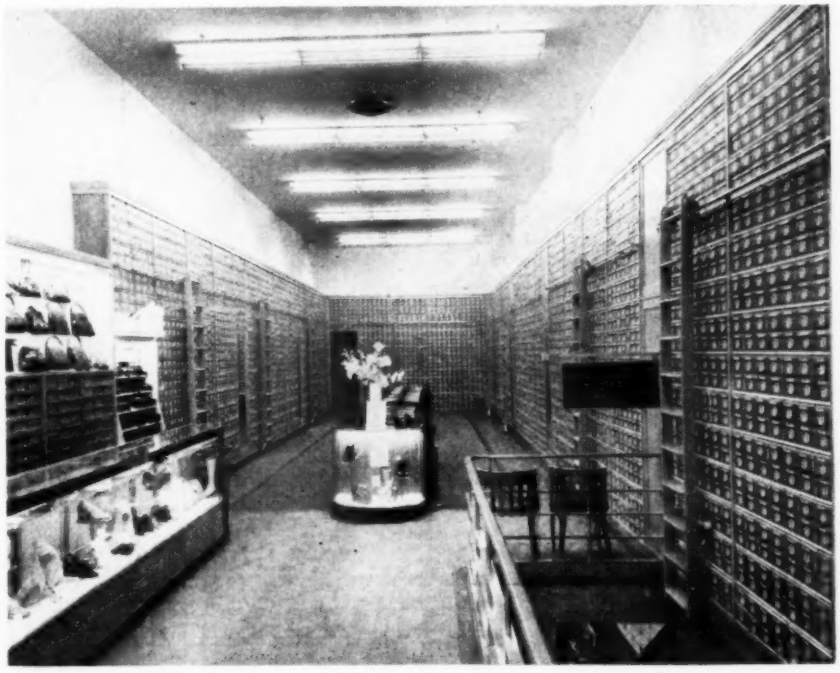
The salesman should point out to the bank that the merchant who is most anxious to modernize and improve his store generally possesses the qualifications that make him a good risk, for his purpose in so doing is to build his volume of sales.

From the financial institutions that evidence their willingness to cooperate, the salesman must find out the basic loan requirements so that he can discuss these intelligently with the contractor in his presentation to the store owner.

To cash in on this plan the salesman must study the retail organizations in his territory that would be the most likely to modernize as equipment becomes available. He needs several good electrical contractors to work along with. His next step is to discuss with them all the details of the plan so that the possibilities of financing improvements can be properly explained to the potential customer.

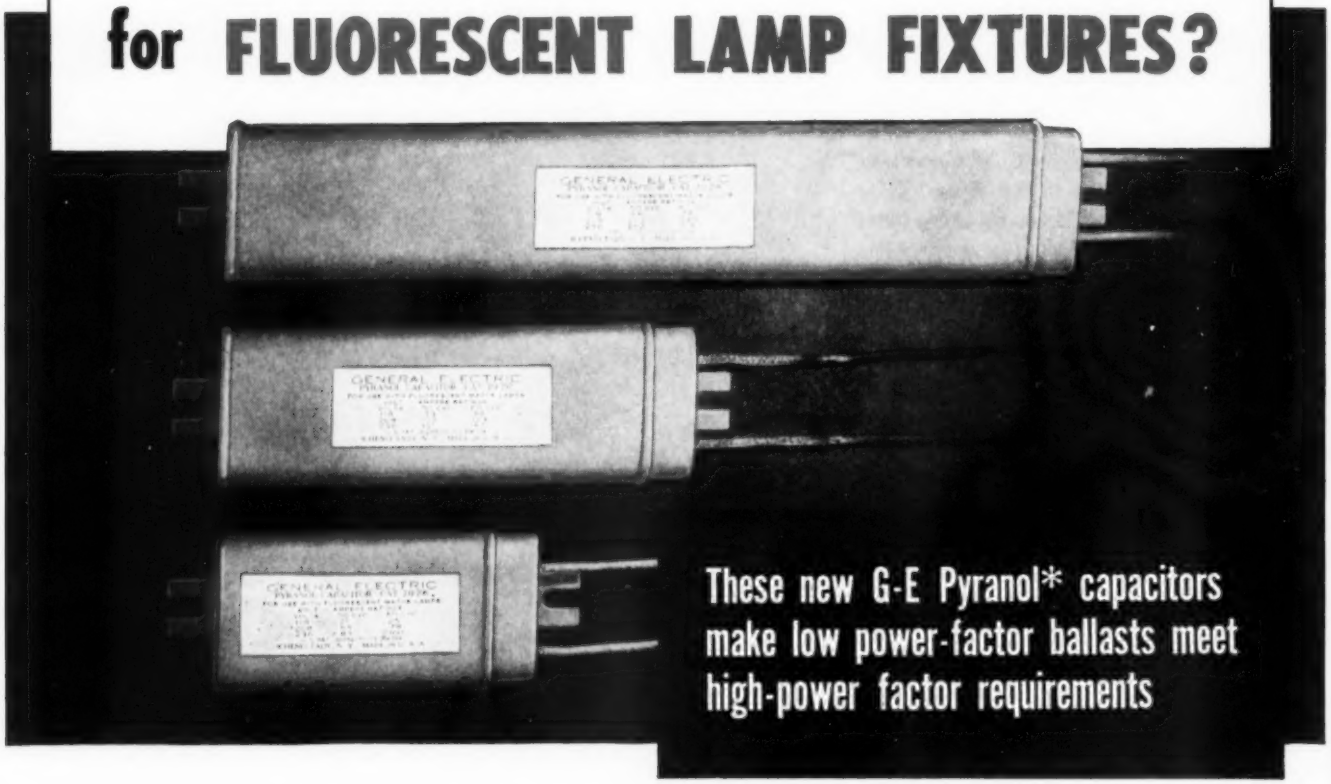
Intensive and careful selling of the electrical contractor who services retailers is a step that no salesman must overlook. Where no electrical department is maintained, the retail merchant, particularly the smaller one, looks to the electrical contractor for recommendations and approval of any electrical changes or electrical equipment additions in his store.

Thus with the cooperation of the bank and the electrical contractor the salesman is ready to go after a profitable chunk of business that will not be too hard to sell.



Adequate wiring is the basic requirement in the modernization of any store. With it is made possible planned lighting, air-conditioning, proper arrangement of display cases and the many other modernization steps involving the use of electricity. Curtis Lighting, Inc., photo.

need POWER-FACTOR IMPROVEMENT for FLUORESCENT LAMP FIXTURES?



If your present supply of high-power-factor ballasts is inadequate for your high-power-factor fixture requirements, use the new G-E Type FL capacitors.

These new Type FL capacitors**, when simply installed in the fixture with available ballasts, bring low-power-factor equipment up to acceptable power-factor levels.

The size and weight of these new capacitors permit easy assembly in new or existing fixtures. A short shipping schedule on Type FL capacitors make them available for current fixture business—*now—when you need them.*

These hermetically sealed Pyranol impregnated units, featuring new low cost as well as small, light-weight design, offer the same high quality as millions of G-E capacitors now used in fluorescent installations.

Three designs are available for operation at 50 or 60 cycles, 118, 208 or 236 volts a-c, and when used individually, or in combinations as suggested, provide a minimum of 85 to 95 percent power factor for a single 15-watt lamp, or up to four 40-watt lamps. For further details, write to *Apparatus Department, General Electric Company, Schenectady 5, N. Y.*

***Listed by Underwriters' Laboratories, Inc.*

DATA FOR 60 CYCLE, 118 VOLTS A-C

Lamp Size Watts	1 Lamp	Approx. P-F	2 Lamps	Approx. P-F	3 Lamps	Approx. P-F	4 Lamps	Approx. P-F
15-T-8	S	95	M	86	L	95+	L	86
15-T-12	S	86	S & M*	95+	L	88	S & L*	87
20-T-12	S	90	M	85	M & L*	91	L	85
30-T-8	M	85	L	85	M & L*	86	L & L*	86
40-T-12	M	86	L	86	M & L*	86	L & L*	86

Symbols: S—Cat. No. 21F296; M—Cat. No. 21F297; L—Cat. No. 21F298 *Two capacitors in parallel

VOLT-AMPERE RATINGS

Volts A-C	21F296		21F297		21F298	
	50 Cycle	60 Cycle	50 Cycle	60 Cycle	50 Cycle	60 Cycle
118	21	25	33	39	66	78
208	65	78	102	123	204	245
236	83	100	131	157	262	314

*Pyranol is General Electric's registered trade name for a noninflammable liquid dielectric for capacitors.

GENERAL ELECTRIC

407-110-5700

Work With Small Contractors And Build Yourself Bigger Buyers

Now is the time to help contractors get established as successful business men, says wholesaler who has been a "godfather" to his contractor-customers for more than fifteen years

As Told To
Howard J. Emerson

Being guide, phi'osopher and friend to the electrical contractor has built a strong relationship between W. L. Joseph's Ace Electric Supply Co., Jacksonville, Florida, and its contractor-customers. Mr. Joseph, shown above, and his sales organization have profitably concentrated their efforts on the contractor group for more than 15 *years.*

AS most wholesalers' salesmen are counting on the electrical contractors to provide a sizeable part of today's sales volume, these salesmen will find it to their advantage to start right now playing "godfather" to their small contractors if they want to get maximum business and build up a clientele of steady customers, says W. L. Joseph of Ace Electric Supply Company, Jacksonville, Fla.

Being a wholesaler, who specializes in supplying electrical materials to contractors in that northern Florida industrial city, Mr. Joseph speaks from extensive actual experience but with an approach that is not exactly conventional in pattern.

Said Mr. Joseph, "It's all right to feel that, as a wholesaler's salesman, you have to help your contractor-customers with a layout now and then, or help specify materials, or give them rush service, to build their good will and bring them back for the next order. But, you can't stop there. Man, what good to the salesman and his boss is a lot of good will from a contractor who just went into bankruptcy?"

And there you have the basis of what Mr. Joseph feels must be the full extent of a salesman's godfathering of his contractors. Help newcomers make a success in the contracting business. Help old hands stay in business. Help all of them make a profit.

Problems Contractors Face Now

The problem is acute right now. Mr. Joseph points out that the end of the war created at least three important changes in the electrical contracting business—and all of them must be worked out satisfactorily or the wholesalers' salesmen and the contractors themselves will take a financial beating.

First, there's the electrical contractor who has stayed in business during the war years. His type of business changed—most of his work was for the Government or for war industry, and there was a great increase in profitable industrial maintenance business. He has been rushed to death, been short-handed, etc., but he has made a good profit and at the same time has not had to pay too much attention to overhead and operational costs. He will take care of himself in the future.

Second, there's the contractor who closed up shop and became a hired electrical maintenance man in

The following is a suggested letter of the type referred to in this article.

X. Y. Z. ELECTRIC SUPPLY CO.

15 John Doe Street

Anywhere, U. S. A.

To our contractor customers—Present and Future:

We are offering the following explanation of overhead expense, thereby giving you the reason why we have used the 50 percent mark up for resale, in the enclosed pamphlet.

The resale prices are based on your small quantity purchases, as most purchases have been on this basis during the past year.

We will take the average contractor in a small community, doing a business of approximately eight thousand ($8,000.00) dollars a year gross.

The average monthly expenses of this concern, would, on a conservative basis be somewhat as follows:

Rent per month	$ 30.00
Salary	200.00
Lights	5.00
Stationery	2.00
Office Expense	5.00
Postage	2.00
Telephone	6.00
Auto, gas and repairs	50.00
Miscellaneous expense	4.00
Losses on accounts	10.00
	$ 314.00
Total expense per year	$3768.00
Relation of Overhead to Total Volume	$\frac{3768}{8000}$ or 47%

Example to show the net profit resulting from a sale of miscellaneous material, at suggested resale prices.

Gross amount of sale		$20.00
Your small quantity cost of material	$10.00	
Overhead expenses 47%	9.40	
	19.40	20.00
Net profit on sale		$ 0.60

This profit represents 3 percent on the selling price or 6 percent on your cost.

Naturally if you can increase your volume without increasing your overhead, the profit rate would be higher, but if the volume is less, with the same overhead, the profit would be reduced.

Remembering that the suggested prices shown allow you a 50 percent gross profit on small quantity purchases and that you would receive a substantial increase in discount when purchasing in larger quantities, you can readily see that you could allow your customer a discount from suggested prices, when the sale amounts to enough to enable you to earn a better discount.

We would suggest that you fill in your actual operating expenses, in place of the arbitrary figures used in our example and determine your overhead expense.

We have heard the statement made by some contractors that, "they had no overhead."

To those who are under this impression, we recommend that you substitute your actual expenses in place of our figures, to determine the true facts of your cost of operating a business. All of your expenditures except for merchandise should be included, with proper consideration given to your time employed in making estimates and collecting of accounts.

Contractors not having a store should include at least a part of their home expense, for rent and telephone, as overhead. After doing this, what is your percentage of overhead?

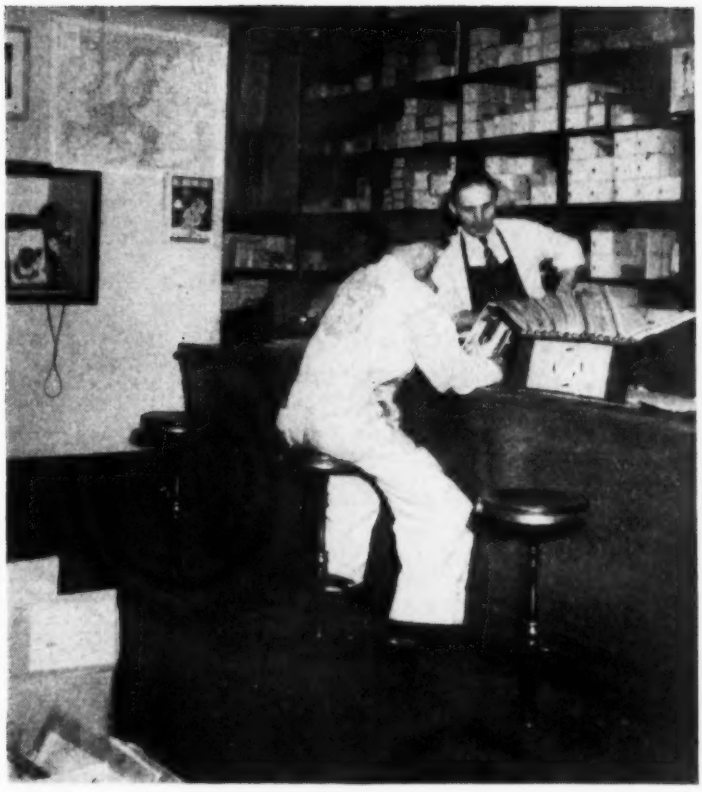
We wish to be of assistance to our Customers in every way possible and will appreciate suggestions from you as to the manner we can render the greatest service to you.

Presented by

X. Y. Z. Electric Supply Company

war industry or joined a larger contractor in war construction work. He has had the problem of reorganizing his concern, hiring a crew, opening an office, getting equipment, and getting jobs to do.

Third, there's the man who may have worked for a contractor in the past. He probably was in war industry or was in the armed service. Either from his high and steady wages he has saved some money and is ready to exercise his inherent American right and desire, "to be his own boss," or he has access to funds under the GI Bill of Rights and wants to start his own business. Unfortunately, statistics on business success show that an optimist would not give this fellow better than one chance in ten of succeeding.



Helping the small contractor at every opportunity to make a success of his business will enable the salesman to get maximum orders from a group that can contribute greatly to his sales volume.

Salesmen Can Help

With these problems facing the men whose repeat orders provide the wholesaler's salesman with a staple part of his business in normal times it is obvious that every opportunity should be taken to help these contractors over the rough spots. And behind every salesman should be the full cooperation of the wholesaler because, as the one who extends the credit, the wholesaler is the one who stands a chance of not being paid if the contractor fails.

Mr. Joseph feels that salesmen can help greatly by checking on the ability of a contractor to estimate jobs profitably. Making certain that the contractor has added sufficient percentage above his costs, and that he has used adequate records to show him his true cost for each type of work, is one sure way to guide him toward success. In this situation, the business ability of most salesmen can be an asset supplementing the average small contractor's knowledge of the time and labor involved in construction.

Two Simple Methods

At least two ways of helping the contractor to make profitable estimates have been worked out by Mr. Joseph. One is a mimeographed price sheet which the Ace Electric Company provides to all its contractor-customers and prospects.

One side of this price sheet shows the suggested list prices for the consumer—usually 25 to 33 percent higher than the cost to the contractor. The latter can show this list to his customers when contracting for or bidding on a job. Having the prices to the consumer set down in black and white is considered a useful sales tool because it tends to overcome the suspicion invited by merely a verbal estimate which the customer may feel has been made high just for him.

On the other side of this price sheet, printed so that it will fold over and match the list of items, is a price list to the contractor. By folding over the sheet, the contractor is able to get his cost price quickly for estimating.

Those contractor-customers, particularly the ones either just starting in business or reorganizing for peace-time operation, are expected to find the other of Mr. Joseph's helps particularly valuable.

This is in the form of a two-page letter which explains the method of mark-up used by Ace Electric Company on the fold-over price sheet, and indirectly acts as a primer of simple cost analysis for the small contractor.

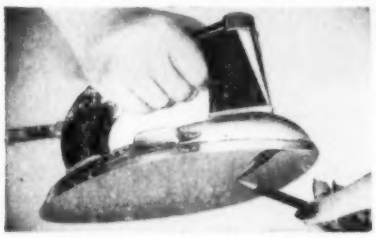
Outlined in detail is what the wholesaler takes as the annual average expenses of the small electrical contracting concern, and on the basis of the expenses shows how the contractor's overhead should be figured and then applied to an estimate. Several items of expense which might be overlooked easily by the small operator are called to the attention of the contractor. The letter emphasizes the fallacy of "no overhead," which is the error of belief made by too many small business men, in the electrical as other fields.

Along with these factual methods of aiding the contractor, emphasis is placed by Mr. Joseph on the salesmen's need for a broad knowledge of electrical construction. This is a necessity, he says, so that the salesman will be able at all times to analyze and give sound business judgment on any of the individual problems that face his contractors.

Extra large 4-way Full-vue ironing surface speeds ironing

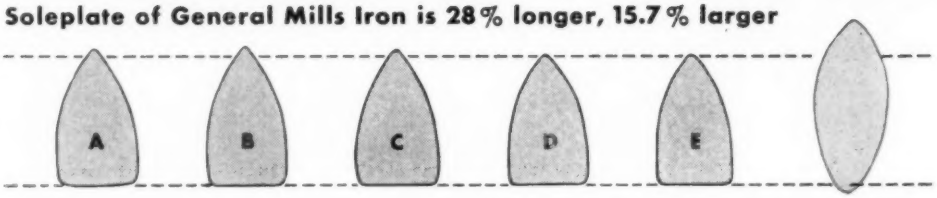
TAPERED, ROUNDED BACK means faster, easier ironing because *either* end of the iron reaches easily, surely, into tricky pleats, ruffles and gathers without twisting or turning the iron around.

BUTTON SAVER EDGE means easier ironing under buttons. It's slanted all around so every part of it slips easily under buttons without prying them loose or weakening the threads.



TRU-HEAT CONTROL means faster ironing, greater safety for delicate fabrics because it's the fastest-acting, most accurate known type of iron heat control. (The soleplate itself is actually a part of this new, more accurate ironing temperature regulator.)

Soleplate of General Mills Iron is 28% longer, 15.7% larger



EXTRA LENGTH, EXTRA AREA MEANS LESS WORK, more ironing at every stroke, fewer motions, speedier ironing. The 4-Way, Full-Vue Ironing Surface of the General Mills Tru-Heat Iron is 15.7% larger, 28% longer than the average of five other leading irons—as shown in the actual scale diagram above. Its new shape lets the iron glide smoothly in any direction without bunching up material.

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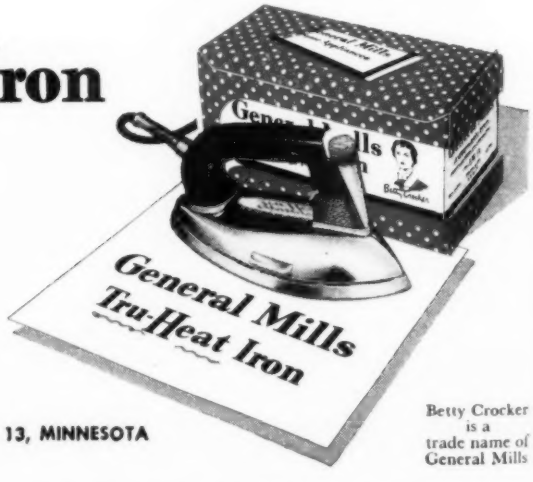

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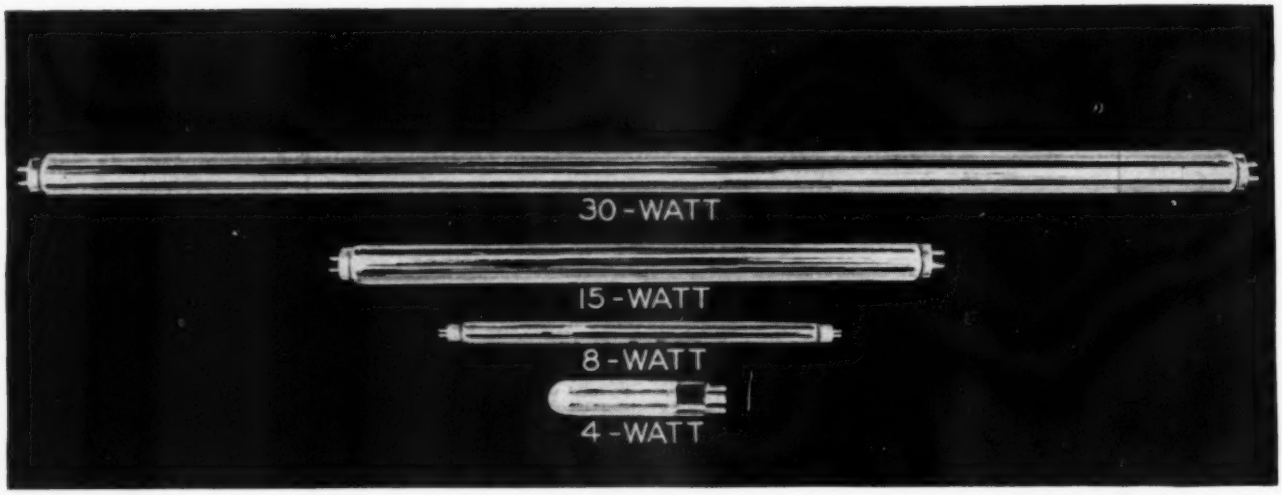


These popular sizes of bactericidal lamps furnish protection against respiratory disease and cut down waste and spoilage caused by air-borne mold spores. To the salesman these lamps and the special fixtures for them furnish a tremendous potential market in industry, commerce and the home. General Electric photo.

D. C. Frederick

WHAT the future dollar market of bactericidal lamps will be cannot, of course, be predicted with certainty, but there are those who hold, that eventually the market for the lamps will approach in volume the market for lamps for illumination.

At a gathering of a large wholesaler's sales organization, held some time ago, a well-known authority on bactericidal lamps and their application was invited to address the salesmen. He gave a comprehensive picture of the subject, tied in with much helpful information from the salesman's standpoint. The following is from that part of the talk dealing with industrial applications rather than the strictly medical and hygienic.

The discussion was based upon that modern type of ultraviolet unit provided with baffles, which are movable and protect individuals from direct irradiation, which may be to a certain degree objectionable. (Even then, care should be taken that individuals do not work directly under them.)

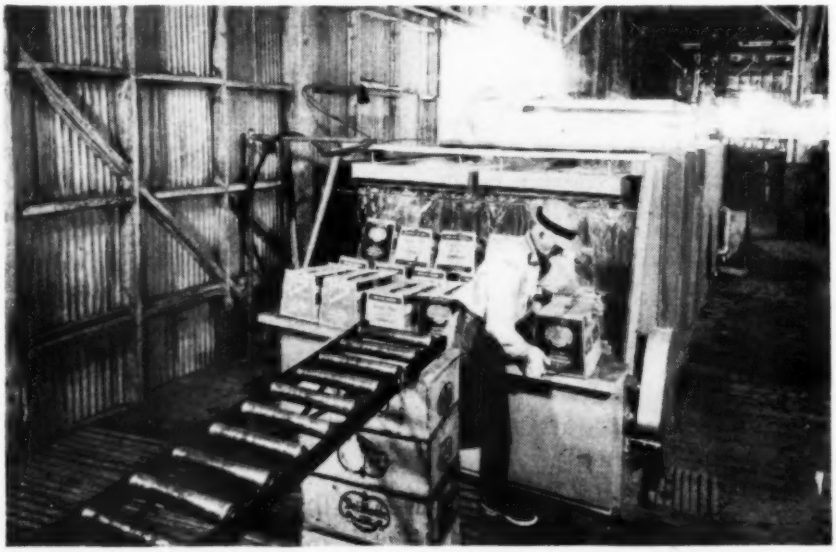
It is in product protection that the wholesaler will in all probability find immediate sales volume on this product in his territory.

In the field of product protection, an industrial problem, it is safe to say that in all areas where food is processed, where pharmaceutical products are processed, in fruit packing, in bakeries and in fact in every type of edible product preparation, it is possible for bacteria, molds and in fact all kinds of microorganisms to contaminate such products.

The various types of molds, such as Aspergillus, Penicillin, and Niger are usually found in bakeries, sausage-packing plants, in the fruit packing industry, in the citrus industry, breweries, etc. How such organisms can be suppressed is another thing that the salesman will be called upon to know and must be able to talk about intelligently.

What manufacturers had to consider were: first, to determine the amount of ultraviolet energy that can be applied to a given area; second, the killing time of such ultraviolet energy in relation to the offending organisms; and finally, the cost of an installation in relation to the amount of the annual losses suffered by the client.

Take a bakery, for example. The average one has a serious mold



A battery of bactericidal lamps installed over this machine for washing and precooling vegetables prior to shipment keeps bactericidal count low in refrigerated water. Westinghouse photo.

Bactericidals Are Big Business When Sold for Products-Protection

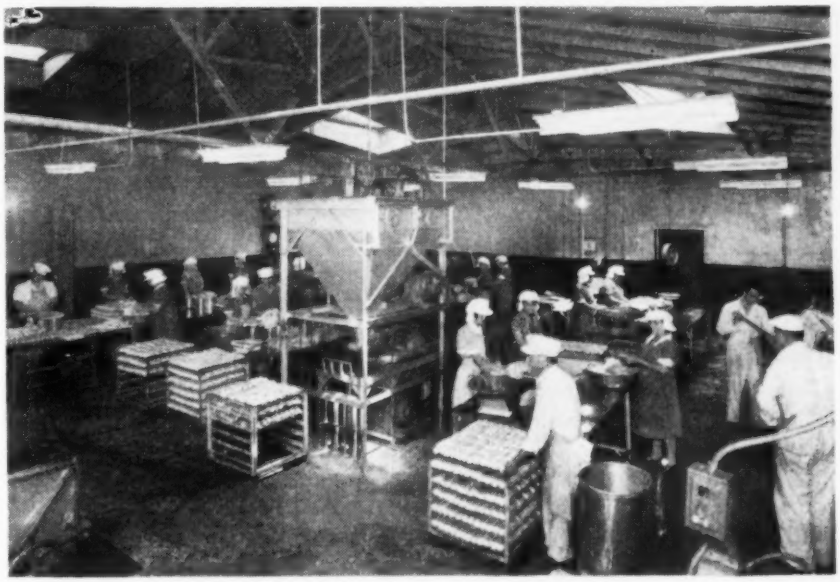
The market for bactericidal equipment as means for products-protection in industry is seconded only to that for lighting. Like in lighting — the salesman who gains the know-how for authoritative selling — gets the orders

problem. The walls usually have heavy encrustations of mold. The fermentation room is usually the worst spot, although heavy mold spore counts have been found to exist in every area within the plant.

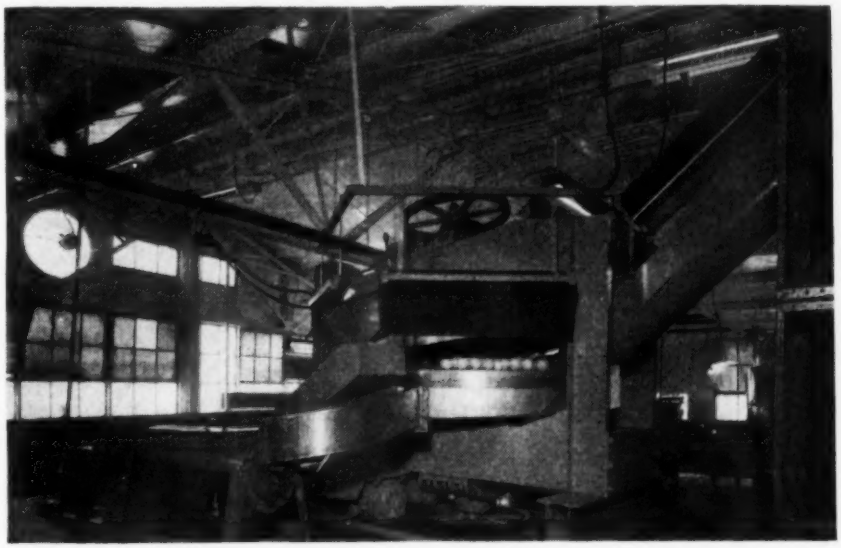
The usual recommendations are: First, scrape, clean and paint all walls and ceilings in the area to be treated; second, and dependent upon ceiling heights, humidity and other factors, make an installation of ultraviolet lamps on a basis ranging from one 30-watt unit to 80 sq. feet. to one 30-watt unit to 175 sq. ft. Depending on the conditions found, the units are mounted on the ceiling of a room at appropriate centers.

If there are workers in the room, a certain sacrifice of efficiency must be made to protect the eyes and skin of those individuals. Experience has been that bactericidal lamps on the walls in areas where people work for a protracted length of time should not be placed on a basis greater than one 30-watt unit for 150 sq. ft.

It is best to directly irradiate the packing and wrapping machinery in a bakery so that the light source is never more than 15 inches away from the machinery to be irradiated. Care should also be taken that the rays are not reflected from the machinery in such a fashion as to come back into the eyes or face, or uncovered limbs of the worker. This may sound rather difficult but in actual practice it is a simple matter



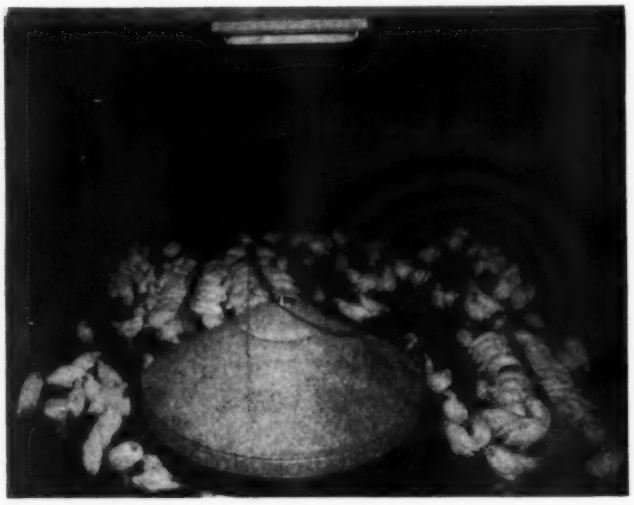
Typical of bactericidal installations in food processing industries is this in a Los Angeles plant making tamales. Bactericidal lamps installed here greatly reduced mold count and eliminated an attendant odor that made it difficult to secure help in the department.



Treatment of oranges by ultraviolet in a California citrus packing plant before shipment to eastern points prevents fungus and decay. Both photos on this page are Tru-Air Ultraviolet Products Co. photos.

In a carefully controlled test, egg laying increased 11 percent when bactericidal lamps were installed in the laying houses. Poultry also grew stronger and heavier under beneficial ultraviolet rays from the lamps. Sylvania Electric Products photo.

Substantial reduction of air-borne bacteria and viruses responsible for respiratory and skin infections among baby chicks can be secured with installation of bactericidal lamps. General Electric photo.



and can be accomplished by common sense applications.

Results for the customer in such an installation can confidently be summarized in this fashion: That, where bakeries previously had to scrape and paint walls almost monthly to accomplish mold-free appearance, the use of proper bactericidal equipment obviates this necessity. Bread baked under these conditions should, moreover, have an increased mold-free life of from five to ten days.

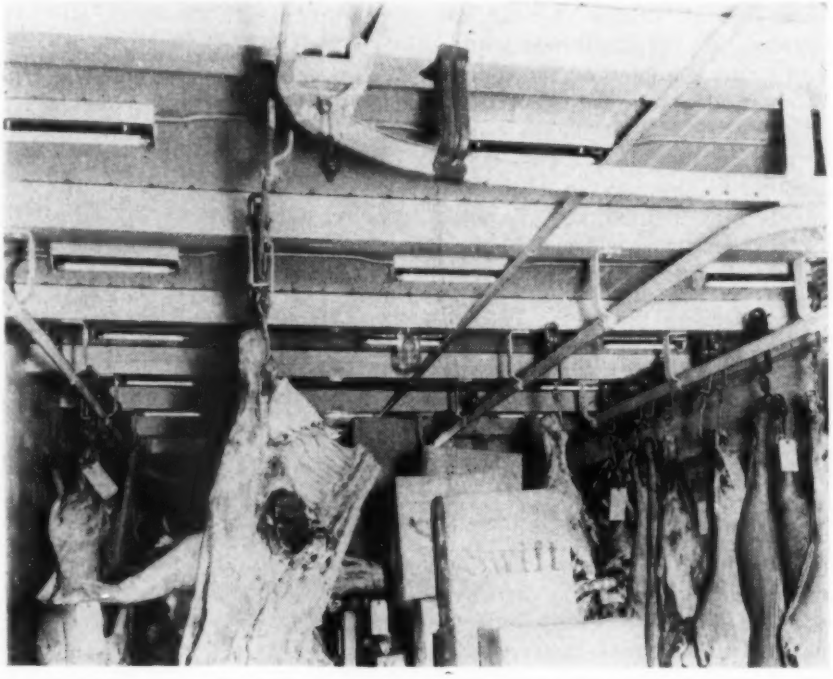
Similar treatment of other food product areas, for example one of the rooms of a large packing company in Los Angeles, has suppressed mold. Another example is a food products company making tamales.

Here highly satisfactory results were obtained not only in the reduction of mold count but by doing away with a stench that before the installation was made had rendered it very difficult to obtain help to operate the department. Incidentally, at this plant it was possible to prevent a "souring" of one of the products.

The citrus industry also presents a large field, particularly in connection with the extraction of juices.

In an orange juice extraction plant an installation was made which treated not only the general air but also treated the machinery, conveyor lines and juice vats with excellent results.

An official of the ....State Department of Public Health thought that the barrage treatment of juice vats would result in an oxidation of the product. He thought that the Vitamin "C" content would be effected by the treatment But the



Mold growth was cut 100 percent; meat losses reduced 75 percent and contamination by foreign odors completely eliminated in this Salt Lake City frozen food locker plant when bactericidal lamps were installed. Tru-Air Ultraviolet Products Co. photo.

actual results showed that the product is not only purer but far more palatable and completely free from any bacteria count.

Experiments are now going on for the control of contamination in the orange and lemon packing and storing industry. It is hoped that soon a very satisfactory report will come out showing achievement of success over a problem which is costing the citrus packing industry millions of dollars annually.

Similarly, in the State of Washington smooth fruit packing industry, installations are being made at Yakima and Wenatchee for the suppression of mold and rot in the apple, pear, cherry, apricot, plum and other smooth-surface fruit fields. The thought is that the fruits brought into the packing house in lugs are heavily infected at the start.

The air in the sorting, processing and packing rooms also becomes infected and the problem is to devise means which will offset the losses suffered. Tests were made of the air and of the fruit to determine the organisms to be combated. It was found that the old enemies, mold Aspergillus, mold Niger and mold Penicillium were present.

The remedy is to erect an addition to the conveyor line which makes it possible to barrage the fruit before it reaches the sorters. A casing is placed over this additional conveyor belt in such a fashion that 12 30-watt bactericidal tubes can be placed in a space 12 feet by 45 inches. The fruit is dumped on the belt so that it is irradiated and agitated and out of the barrage in about two minutes.

General air in the packing rooms is treated on the basis of one 30-watt lamp for every 150 sq. So far, the results have been extremely gratifying, and recently a box of cherries which had been packed under this method was shipped to New York, and none of the cherries was found to be infected upon arrival. A box of cherries that had not had the benefit of the treatment was similarly shipped to New York, and seven out of ten were found to be rotten.

Questions and Answers for the Salesmen

Q. How serious are the burns from ultraviolet rays? Are they the same as X-ray burns?

A. The ultraviolet ray does create on the skin the equivalent of a serious sunburn. There is, however, no penetration. The units must, of course, be mounted strictly according to instructions, 6½ feet to 7 feet above the floor.

Q. What is the effect as to liability?

A. If you put into a given area a greater number of microwatts than instructions indicate, you can produce a burn—you must never oversell in this field.

Q. About 25 to 27 years ago, Al Brandt said that all milk would be sterilized by ultraviolet rays some day. Has that problem been licked yet?

A. It is possible now to sterilize and disinfect with these tubes. Machinery is becoming available to assemble sufficient tubes to create the effect of pasteurization. It will not be done by direct irradiation, nor by any other means than by submersion of the tubes in the liquid.

Q. What would that do to the Vitamin D content of the milk?

A. Increase it.

Q. How much?

A. Cannot say now.

Q. Should this equipment be used in a bacteriological laboratory?

A. Yes. In such a laboratory it is more important to use these units than anywhere else, to prevent the possibility of cross contamination from one culture to another.

Q. What is the advantage of removing the baffles?

A. None other than at times it may be desirable in a hospital, where everyone is completely covered and not exposed to direct irradiation, but this is not advised.

Q. There are certain dairies that advertise a low bacterial count for their product. Could other milk companies reduce their bacterial count by the use of this equipment?

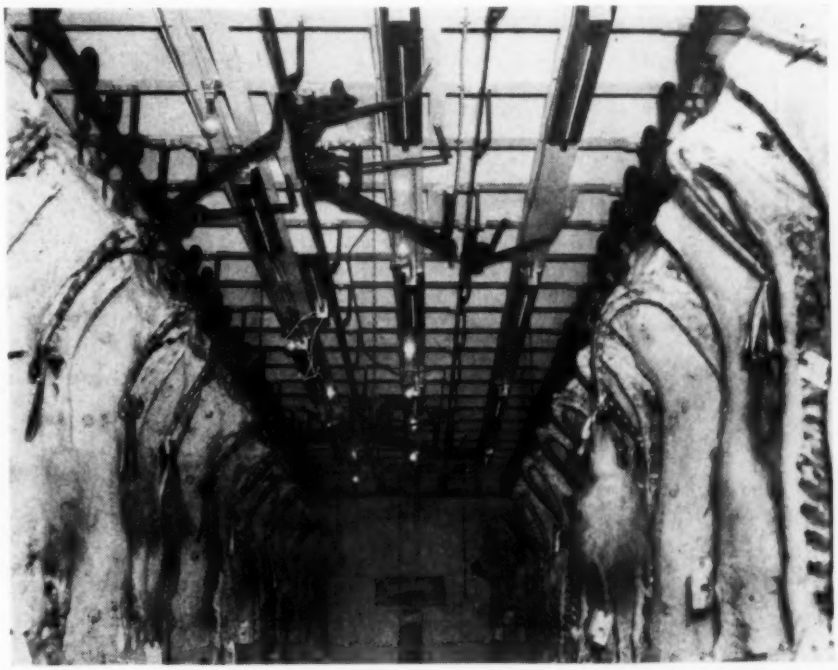
A. Probably.

Q. Is that answer applicable to any liquid other than milk?

A. Yes, although different liquids would require a difference in intensity of the application.

Q. Must we, as wholesalers, call upon the manufacturer to engineer all of our jobs?

A. Most manufacturers will be glad to give engineering assistance. About all the wholesaler has to do is to follow instructions in tables provided for the field of personal protection. In the field of product protection, however, it would be better to get the engineering advice of the manufacturer.



Bactericidal lamps installed on the ceiling of this meat holding cooler kill mold and slime forming organisms without affecting the taste or appearance of the meat. This is a saving to the packer since much trimming loss is eliminated. Westinghouse photo.

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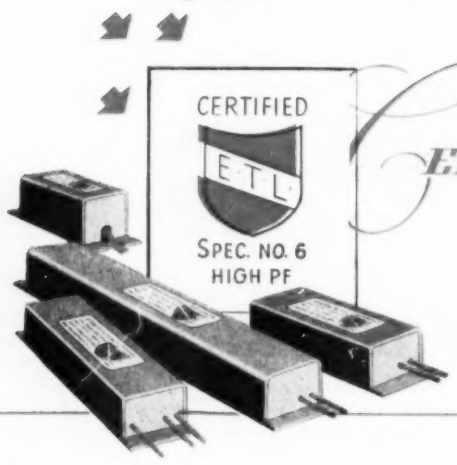

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House Heating By the Heat Pump Will Make New Markets for You

The heat pump seems destined to join refrigeration, ventilation, air conditioning, fluorescent and bactericidal lamps as important sources of new business for the wholesaler—all laboratory babies that grew into big business

By S. W. Andrews

*Rate Engineer**

American Gas and Electric Service Corp.

THIS is a subject which has been receiving more and more public notice during the last few months. It is also a subject with which we in my company have been concerned in one way or another for fifteen years. It is a subject in which the more we learn the more enthusiastic we become, notwithstanding the fact that our progress turns up various difficulties as we go along from day to day.

As we look at our domestic market, and this holds to some extent also for the commercial market, we find that the toughest single problem facing us is house heating. We have had a number of instances recently where housing developments have been constructed involving small, modern two and three-bedroom houses, where the house heating is to be done with gas. In many of these cases, the promoters have also included gas cooking, gas water heating, and even gas refrigeration. We find it is difficult to sell electric appliances where gas is being sold for house heating and where, therefore, additional gas use comes at the low blocks on the rate.

To meet this competition we would like to be able to offer electric house heating to our customers at installation costs comparable to other forms of automatic house heating and at operating costs comparable to fuels. Then we will not only open up new markets for ourselves in the form of the heating load itself, but we will go a long way towards enabling the installation of electric appliances of all sorts.

We have studied the possibility of electric house heating by resistance-type space heaters. As you know, this is most difficult of accomplishment on any really economic basis.

We made some calculations a few weeks ago on a housing project in one of the southern communities we serve and the estimated annual cost to the customer came out between two and three times the estimated cost with fuels. And so we are convinced we have to look for something else.

And we turn to the heat pump as being the one device now in prospect which seems to hold out the possibility, or I think we can say

This single-story, three bedroom brick residence in Chattanooga, Tenn., is the first home to use the reverse-cycle, or heat pump, system of heating. Taking heat available outside of house in a place of low temperature, it is pumped into the house and released at a higher temperature. Cycle is reversed for cooling the home.

probability, that the electrical industry can really go after the house heating business.

I find in talking to many people about the heat pump that there seems to be a good deal of mystery about just what the heat pump is and how it operates.

Basically, it is simply the very familiar electric refrigerator. In the case of an electric refrigerator, what the unit actually does is to take heat out of the inside of the cabinet, which is a place of comparatively low temperature, and release the heat in the room, which is a place of comparatively high temperature.

In the ordinary electric refrigerator, we are interested particularly in the cooling effect in the inside of the cabinet and we never even consider the heating effect in the outside room. If, however, we change our interest, if we are interested in heating rather than cooling, and devote our attention to the heat which is liberated by the refrigeration machine rather than to the cooling effect, it has become customary to speak of the unit as a heat pump rather than a refrigerator.

Where the heat pump is used for domestic heating, it takes the heat which is available outside of the house in a place of low temperature and it pumps that into the house and releases it at a higher temperature. A heat pump is ordinarily designed to operate on a reversible basis so that when you are heating you take heat from a low temperature source, air, water or ground, outside of the building and pump it into the building. The same unit can be reversed and operate as a cooling unit, in which case it takes the heat from the inside and pumps it to the outside.

In a way this sounds complicated. Certainly a refrigeration unit with its motor, its compressor, evaporator, condenser, piping, valves, etc., is not as simple as a conventional fuel-burning heating plant. But it is wonderfully efficient.

The amount of heat which can be transferred by a refrigeration machine or a heat pump from a place of low temperature to a place of higher temperature is several times the amount of heat represented by the electric energy which goes into making the machine operate. The expression which describes this is the coefficient of performance and the coefficients of performance of heat pumps now available may run from three or four to one, depending on temperature conditions.

This means that, as contrasted with space heating, the customer may need to buy only from one-quarter to one-third as many kilowatt hours as he would for heating by space heating.

From the customer's point of view, if you cut down the kilo-watt hours by three or four to one and hence cut down his annual cost of operation, you can see that electric house heating by the heat pump gets to a position where we can really begin to compete with house heating by fuels.

That is why we are so interested in the heat pump and so enthusiastic about it, why we think it is so necessary, and why we think that you people, like ourselves, will be interested in it. Surely, when the heat pump gets into full commercial production there is going to be a tremendous market for all of us.

We have in our company had actual experience with heat pump installations for some twelve years. We have units installed in eight office buildings in different parts of our system. These units are, of course, larger than units which would be necessary for domestic purposes and they range in size from 15 hp. to 50 hp. The first of these was installed in 1934-5 and the latest in 1946. They were in each case systems employing conventional motors and compressors, evaporators, and condensers, and also using conventional refrigerants.

During the period that these have been installed, they have been the only heating equipment which has been used in these offices. They have given satisfactory service on both the heating and cooling cycles. They have convinced us that heating and cooling by a heat pump is practical and workable.

It occurred to us this spring that, with the end of the war and reconversion by manufacturers to peacetime operations, it would be very worthwhile if we could interest some of the manufacturers in developing a heat pump specifically designed for domestic use. There has been very little real pioneering work on this problem by the manufacturers and it is, of course, perfectly natural that this should be the case during the war years. We thought, however, that, if we could now point out to them the type of performance that we were looking for and could back this up by orders for a substantial number of units, perhaps we could get the ball rolling.

Therefore, we prepared in the early spring specifications for domestic heat pumps and we sent these out to a number of manufacturers for their comments. At the same time, we sent the proposed specifications out to a great number of utility companies throughout the country asking them for their comments.

We have now had individual talks with most of the manufacturers to whom we sent the specifications. We have in most cases found a great deal of interest and in some cases enthusiasm. There have been other manufacturers, however, who have said that, because of their pressing problems in getting into the manufacture of their standard products, they could not do anything about the heat pump at the present time.

The discussion, both with the manufacturers individually and with the utility men in groups, have been very fruitful and as a result of these discussions we have revised the specifications and the revised specifications have now been sent out to the manufacturers and to the utility companies.

All the units are to be 3 hp, single-phase jobs. This may seem at first to be a rather small unit, but we believe that this unit will be entirely capable of heating small two and three-bedroom houses, built with good insulation, and these are the type of houses which we find to be under construction at the present time throughout the country.

**These are excerpts from an address made by Mr. Andrews at the Eleventh Annual Conference of the International Association of Electrical Leagues. We consider the subject of great interest to every salesman who is interested in the prospects and development of future markets and regret that limitations of paper prevented publication in toto of this highly interesting address. We thank ELECTRICAL MERCHANDISING for supplying the accompanying photographs.—The EDITOR.*

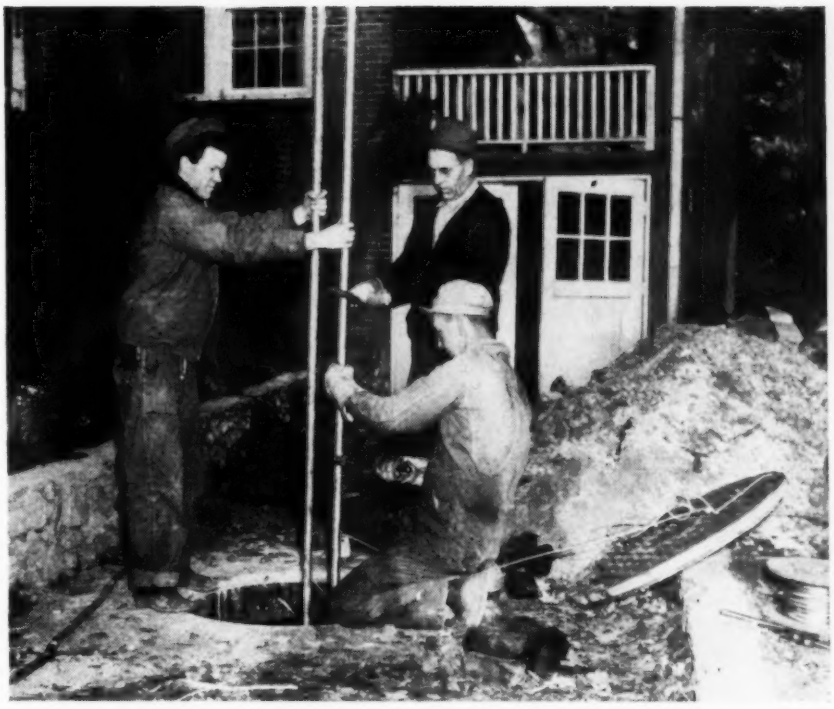
In our discussions with the utilities, the point of view was advanced rather frequently that the initial market for heat pumps might be in large existing houses where people were desirous of having fully electrified homes and that, therefore, perhaps initially we ought to provide for something bigger than a 3 hp unit.

However, it was pretty generally agreed that the 3 hp job would be a good place to start. After some of the 3 hp jobs have been built and we and the manufacturers have had experience with them, it would seem that larger units, or two-stage units, could be developed comparatively easily.

What we have in mind is a heat pump with a hermetically-sealed compressor unit and a factory-sealed refrigerant circuit which will operate with about the same trouble-free performance and the same quietness as the conventional domestic refrigerator of good design. It seems to us that, if the manufacturers can build machines as good as they do for domestic refrigeration purposes involving fractional horsepower motors, they can design the same type of a machine for the larger size of 3 hp. None of the manufacturers seriously disputed his ability to do this.

The specifications ask for performance which is better than the performance presently achieved from those units now on the market. The manufacturers, however, do not doubt their ability to meet the performance requirements. In specifying performance, we have to deal with specific conditions. You cannot ask a manufacturer to give you an over-all average coefficient of performance of, let us say, three to one, or four to one, or some other figure, because the performance of the unit, as you know, is very definitely fixed by the temperature conditions under which the machine operates.

With the inherent characteristic of the refrigeration cycle that for any given inside temperature the machine is more efficient the higher the temperature of the heat source, a great many people believe that in the northern part of the country perhaps only the water-to-air jobs would have application.



ABOVE—Digging a 230-foot well to hold pipe U-tube was first step in installing this reverse-cycle or heat pump system. As water in U-tube reaches an approximate temperature and is returned to the heating unit, a refrigeration compressor and coil extracts heat from the water and this heat is released in the home through a heat exchanger. BELOW—Circulating water pump used in the installation receives finishing touches before going into service. Water is pumped through the U-tube inserted in well with no water taken from the well itself.

It is unquestionably true that at some point as we go further north we will find this to be the case, but I think you might be interested to know that we have three air-to-air jobs in Ohio office buildings, one in Portsmouth and two in the vicinity of Steubenville. Steubenville is in about the same latitude as Philadelphia.

The two jobs which have been in service through complete heating

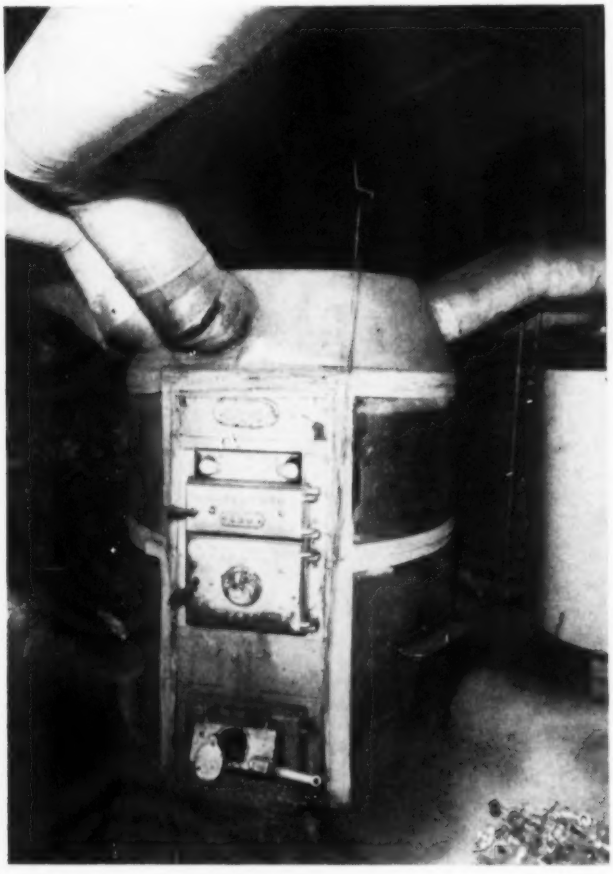
season have proven completely adequate for heating even under the most adverse conditions. The third is a brand new installation and will operate during the coming season. We naturally hope that there will be some air-to-air jobs installed further north so that we can find out what they will do under actual conditions.

Another thing that we have in mind in the specifications is that the units shall be completely automatic. They will switch over from heating to cooling automatically. Especially in the South and the Southwest where they frequently have cool nights and hot days we visualize the automatic operation of the machine on the heating cycle during the early morning and evening hours and on the cooling cycle in the middle of the day. This was stressed by the utility men at our meetings.

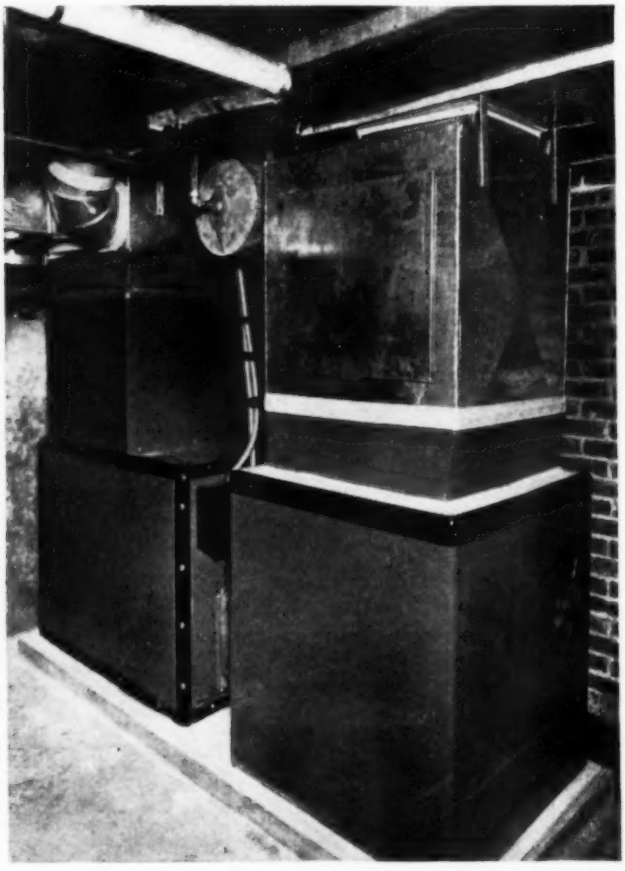
The specifications also provide for the incorporation of a dehumidifier so that inside air in the house can be properly dried during hot, damp weather. This was stressed by utility men from the Southeast, especially those on the seacoast where humidity presents a very important problem.

You are all no doubt interested in knowing what these units might cost to buy and to operate. We do not as yet have any firm first cost figures from manufacturers because they have, of course, just begun the study of the final specifications. In October, 1945, Drayer-Hanson did quote us a price of $1,250 for a 3 hp job of their present air-to-air design. Muncie has talked to us about a figure of $2,100 for some initial units, which price we understand includes a large portion of the development costs and is not necessarily indicative of what final costs will be based upon full production. Whether a 3 hp job eventually winds up $800 or $1,000 or $1,200 or some other figure, it seems reasonably certain that the cost will be less than the combined cost of a fuel-fired heating system and a separate air conditioning system.

You are also no doubt tremendously interested in how and where and under what conditions these units might be installed and what part the dealers might have in the program. That, we judge, is something which will have to be worked out in each community in the light of local conditions and in the light of local policies and practices applicable to the sale of all sorts and kinds of electrical appliances and equipment. But in any event we are confident that, once the performance and efficiency of the heat pump are demonstrated to the public and units begin to come in quantity from a number of manufacturers, there will be plenty of room for all of us in the program.



Hand-fed heater with its headaches and hard work takes up a great deal of space compared to the space required for the heat pump equipment. It is estimated that a properly designed pump should attain a minimum of 87 percent fuel efficiency.



Completed installation above has lower right hand cabinet housing the blower fan for circulating air through the house. Upper cabinet at right is cold air return and contains bactericidal lamps for destroying air-borne bacteria.

The many electrical components that go into the construction of modern signs and "spectaculars" offer a new field to the salesman. Even the glass tubing now comes in standard lengths and cartons, making it extremely easy to stock and handle.

Where They Make Neon Signs — There You Can Make Orders Grow

Two examples that show that the neon sign business is good business—getting better right along—and the salesman who cultivates the men who make signs can cash-in nicely

As told to

Henry W. Young

BUD DELANO, appointed manager of the recently reopened neon supply department of the Electric Supply Distributing Co., San Diego, Calif., is no novice at selling. He had worked up in the company from truck driver to salesman when the war intervened and he went into the Navy.

While he was in the service, the neon supply department of the company lapsed, due to brownouts and material shortages. Subsequently, with restrictions removed, the business began to pick up and the department was revived and upon release from the service, he was placed at the head of it.

Bud was asked recently, "what it takes" to operate such a sign department within an electrical wholesaling organization. This is not ordinarily done, the business in most localities being more or less left to those specialty houses catering to the sign manufacturers. Such houses usually range far and wide

To help increase "Take-Home Savings"

THE Treasury Department has published two new booklets to help you and your employees realize the utmost benefit from your Payroll Savings Plan—benefits proportioned to the extent your employees add to "take home savings" by buying and holding U. S. Savings Bonds.

"Peacetime Payroll Savings Plan" for key executives offers helpful suggestions on the conduct of the Payroll Savings Plan. In addition, it quotes leaders of Industry and Labor and their reasons for supporting the Plan.

"This Time It's For You" is for distribution to employees. It explains graphically how this convenient, easy thrift habit works. It suggest goals to save for and how much to set aside regularly in order to attain their objectives. If you have not received these two booklets, or desire additional quantities, communicate with your State Director of the Treasury Department's Savings Bond Division.

See your Payroll Savings Plan through to maintain your share in America's future. It is sound economics and a powerful force for good today—and tomorrow—as a safeguard for stability and a reserve of future purchasing power—money that is kept within your community.

The Treasury Department acknowledges with appreciation the publication of this message by

Electrical Wholesaling

This is an official U. S. Treasury advertisement prepared under the auspices of the Treasury Department and Advertising Council.

over several states, finding enough sign manufacturers to keep them going on that business alone. What could a wholesaler with a two-county territory do with the line, and what would he have to sell?

"Business in the sign field is done by us with the local neon sign manufacturing field exclusively," he explained. "Consequently, we have a definite and quite limited number of customers. But take a look in any city, village or on the through highways and consider the amount of wiring, lamps, time switches and accessories of all kinds that are necessary to produce this spectacular use of light seen everywhere. It is not hard to realize that these manufacturers have a tremendous volume of business if you go after it.

"In this territory, I may have only half a dozen accounts of that kind. They are the neon people exclusively. Naturally, I do not expect to live off them alone, but devote a part of my time to the sale of wiring devices and supplies in the general field. I do, however, specialize on the sign manufacturing field and attempt to sell everything electrical that goes into or with a sign.

"Possible sales start with the 110-volt primary wiring of the transformer. Next after the transformer, which usually has a 15,000-volt 30 milliamp. Secondary, comes the neon part of the sign. For this, you sell the electrodes, the glass tubing, the housing and stand, high-tension cable and even the 'rare' gas (Linde) which makes the operation of the tube possible. This gas comes in small, one-liter bottles of glass, looking much like large electric light globes.

"All the items mentioned are package products easy to warehouse and handle. Even the glass tubing comes in carton packages. The trend in the neon sign business is toward the cold cathode; in a tube similar to the fluorescent but in 8-ft. lengths. It has several advantages, among them being longer life and the variety of colors that are obtainable.

"Over and above the items mentioned, the sign manufacturer needs various hardware items such as screws, clamps, turnbuckles, etc., which we, as electrical wholesalers, are able to furnish because they are among our pole line hardware lines.

"Bud" Delano

"It is our opinion that the electrical wholesaler in pursuing this specialty does best by applying his efforts only to the larger, well-established manufacturers in the field.

"Bear in mind that there are various degrees and sizes of sign manufacturers. They start with the one-man outfit—perhaps a sign painter or advertising card concern. This operator may have advanced ideas and promote the use of neon in connection with his designs and begins to work toward manufacturing in that way. He contracts with some large sign manufacturer to turn out tubes to his designs, with the sheet metal workers for other parts, etc.

"Many large sign manufacturers have obtained their start in this way and continued to grow. But for the electrical wholesaler's specialist to attempt to follow these prospective manufacturers early in their existence would entail a lot of spade work that would not be profitable in the end because they are already being served by the large manufacturers and these he is already selling."

What Happens When You Go After Neon Sign Supply Business

In its special field, which is supplying electrical wiring devices and materials, incandescent, fluorescent and neon lamps, as well as non-electrical items to the sign trade, the Underwood Supply Co., Los Angeles, is doing an increasing business out of its larger building, recently acquired. Stocks are being built up to something approaching normal and the sales organization is being expanded. Six new salesmen have been added in recent months, as follows:

J. Crawford, formerly with the Electrical Products Corporation, outside salesman; W. Welty, formerly with the Kaiser Co. at the Fontana, Calif. steel plant, is selling in Los Angeles and Long Beach territory; Ben Garfinkel, formerly salesman for the Moore-Monterey Electric Co., an organization in the sign supply business, is outside salesman; H. E. Bailey, formerly with Kaiser at Fontana, is a salesman on outside territory; Harry Paine, formerly with the General Electric Co. at Oakland, Calif. is in charge of inside sales for the graphic arts division; Victor Murphy, formerly with Consolidated Steel in ship-building work, is a new inside counter salesman.

In the territory covered by this company, which consists of the Pacific Coast and Rocky Mountain states, there are not only hundreds of sizable sign manufacturers of all kinds but a still greater number of small concerns or even one-man outfits who are getting into the sign design and installation business.

The use of lighting in signs in all kinds of installations in the large cities, small cities, hamlets and along the highways means big business from the standpoint of lamps, wiring and supplies. Many of the sign builders grew out of just an ordinary sign painter with ambition to expand. He elaborates on his drawings to embody lighting features, sells the idea to his customers, relying on the larger manufacturers to supply the completed sign, which he then installs.

From that, he may expand further and start making up signs or assembling them from sheet metal work contracted on the outside and using neon tubes made to his order. Finally, he will reach the stage of doing these things in his own shop, and so become a full-fledged manufacturer.

Whatever the kind or type of manufacturer, the function of the wholesaler in these supplies is to round up and furnish the necessary materials and equipment.

hook up with Liberty's new promotion as a

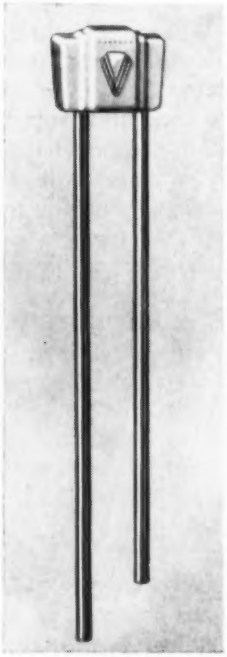
SIGNAL SERVICE SUPPLIER . . .

Nothing to sign . . . nothing extra to buy . . . you simply put the emphasis on SIGNAL SERVICE at the time Liberty Bell advertises this new idea to electrical contractors and craftsmen. That advertising began in February in *Electrical Contracting* magazine and will continue on a regular schedule. A card on your counter, a display of signal devices, wiring, and tools for the job . . . and perhaps a post-card mailing . . . will connect you with a bunch of hustlers buzzing with ambition to do extra SIGNAL SERVICE business. Every sale is profitable, and a volume of small transactions can pyramid your total! Get set for SIGNAL SERVICE now.

No. 20—Combination BELL AND BUZZER

No. 200—BUZZER

No. 200—2½" BELL



No. 46—2-TONE CHIME
$7.95 List

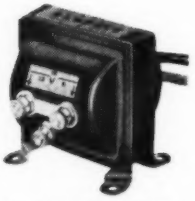
Feature the Liberty Line of BUZZERS, BELLS, GONGS, CHIMES and TRANSFORMERS

Homes, offices, factories, schools need signal devices with "voices" suited to their job. Liberty makes the big gongs that can be heard above factory noise; the unobtrusive buzzer for announcements in offices; clear, bright bells for schools, and the pleasant two-tone chimes becoming so popular in even the most modest homes. To actuate all these units, Liberty builds Underwriters Approved transformers for long life and economical service. Liberty's line is up-to-date in design, ruggedly constructed, profitably priced.

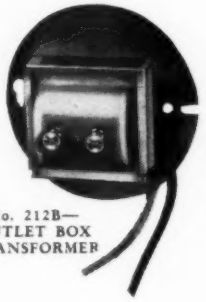
Write

Liberty Bell for listings of the full line of dependable electrical devices.

No. 3E CHIME—$3.50 List
(Without Transformer)



No. 220—TRI-VOLT TRANSFORMER



No. 212B—OUTLET BOX TRANSFORMER

THE *Liberty Bell* MANUFACTURING CO.

SINCE 1924

MINERVA, OHIO

Wholesaler's Salesmen Can Sell Large Infra-Red Installations

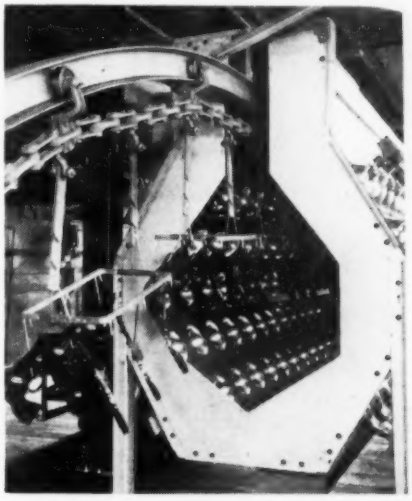
FLEXIBILITY and speed of infra-red for many industrial drying operations place it way ahead of competitive methods and have firmly established a well worthwhile market for the electrical wholesaler's salesman.

Typical of the uses of infra-red drying is this installation at an industrial plant in the Middle West which converted part of its facilities to the production of metal toys. This complete unit was sold by a local electrical wholesaler and returned him a nice profit.

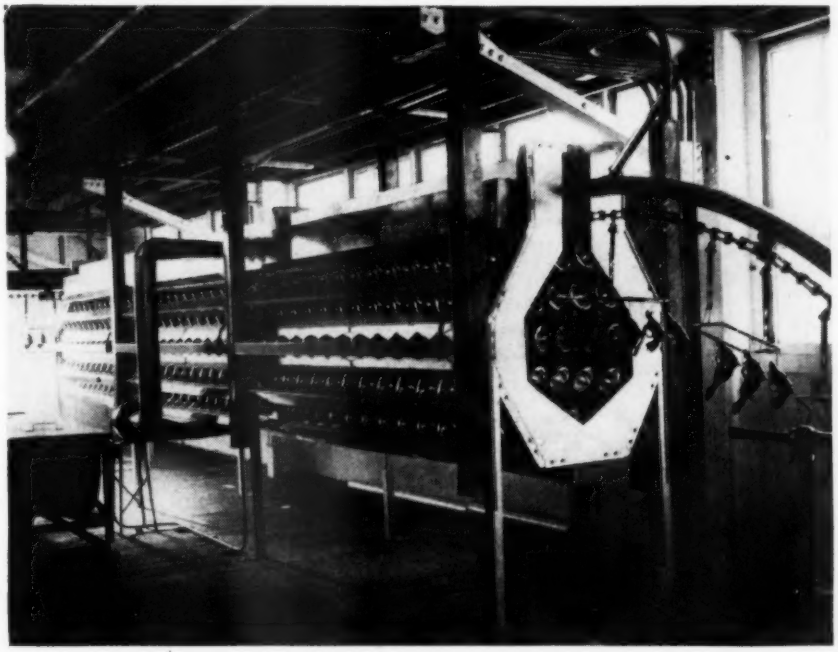
The oven is designed for processing a wide variety of metal (20 gauge steel) toys with a conveyor of variable speed ranging 90 kw. consumption. The first 9′ section of the oven is equipped with 120,375-watt R-40 drying lamps, while the balance (18′) is equipped with 240, 250-watt R-40 drying lamps. The jobber furnished all of the drying lamps in addition to the six 100 amp. 3 pole disconnect switches.

This negotiation was opened with an initial call on September 18. Laboratory testing, engineering, and design work was completed by October 1. Immediate order for the oven followed and shipment was made on October 25. Complete installation occurred during the first week in November.

Since toys are a new product for this particular manufacturer, there was no past experience on which a comparison of infra-red vs. other heating methods could be made as to dollar savings. However, there was competition on this negotiation from manufacturers of gas ovens. Infra-red was chosen primarily on the basis of its wide flexibility in making it possible to handle a wide variety of toy products satisfactorily.



"Six-shooters" have their finish speedily and thoroughly dried by infra-red in this toy factory. Flexibility of infra-red over other drying methods was prime reason for installation since a wide variety of metal toys are being processed in the oven. C. M. Hall Lamp Co. photos.



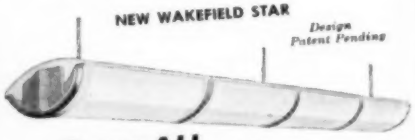
This entire installation, including the 27-foot oven using 120, 375-watt and 240, 250-watt drying lamps and all the electrical supplies necessary to put it into operation, was sold through an electrical wholesaler. This is typical of the many industrial applications that can be done better by infra-red, but which must be dug out and sold by aggressive salesmen.

For a "sky" of easy-eye light specify THE WAKEFIELD STAR!

Combines the advantages of fluorescent and luminous indirect light. Pretested to give extra assurance of good lighting service. Plaskon reflector shield slides out like a drawer for easy cleaning. The ideal unit for Over-ALL lighting in many a drafting room . . . office or schoolroom!

NEW WAKEFIELD STAR

Design Patent Pending



Over-ALL . . .
in lighting
in sturdy construction
in ease of maintenance

A brand new idea . . . that's good for you and good for customers!

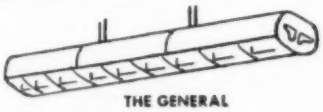
Lighting like that from Nature's sky — diffused, comfortable, evenly distributed . . . Wakefield Over-ALL Lighting! It's pleasing to users and better for work . . . which makes it easier to sell!

We believe you will find that Over-ALL Lighting offers advantages *over* all other systems . . . for lighting efficiency, for comfort, and for effective modernization. Because Wakefield Over-ALL Lighting is based on *seeing* results! And you can use all types of Wakefield Lighting units to provide it.

Ask your local Wakefield representative to tell you about Over-ALL Lighting. Or write for new catalog No. 46. The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield

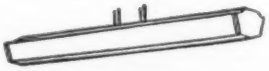
LIGHTING EQUIPMENT FOR OFFICE, SCHOOL AND DRAFTING ROOM



THE GENERAL

THE GRENADIER

THE COMMODORE



THE DIPLOMAT

Thomas A. Edison — Prototype for American Enterprise

Lessons that every salesman, yes – every American – can learn from the life works and inventions of the great benefactor of all mankind

By Frank M. Tait*
Chairman of the Board
The Dayton Power and Light Company
Dayton, Ohio

IT is obvious why we, of the electric and gas industries, should pay tribute to the man whom we honor today, but, has it ever occurred to you that, if we were identified with the mining industry, or if we were railroaders or in radio, or in the motion picture business, to name but a few of perhaps more than a dozen important fields of enterprise, it would be just as fitting, and fully as proper, that we gather today to pay homage to the man whose enterprising genius created the electric age.

We, in America, are justly proud of the many qualities and characteristics of Americans which have lifted our country to pre-eminence among the family of nations. We like to draw inspiration and strength from the ideals and accomplishments of persons who have made sound and substantial contributions to the America of today.

And it is a healthy trait; this habit of ours because, a nation's future cannot but be an extension of its past.

An honest scrutiny of the past shows that competitive enterprise has made America the great nation we are today, great in peace and strong in war. Competitive enterprise is inseparable from our American way of life, for it is the very fibre of freedom and of opportunity. Opportunity means enhanced value.

Perhaps, today, I can take no better example of the growth of values under the competitive system than the electric light and power industry. I feel free to speak concerning this industry, since practically all of my working life has been spent within it, and also many of you here, are part of it, or have interests which border those of the electric light and power industry.

Edison's invention of the first practicable incandescent electric lamp has captured the public's fancy as a symbol of his industry. Actually, it was the merest beginning, and but a small part of Edison's work in this field. Of his 1,097 patent inventions (by far the greatest number ever issued to any one individual) more than 360 dealt with electric lighting and power distribution.

His creations in this field include everything from giant dynamos to conduits, insulators, control boxes, switches, sockets, meters and fuses. In short, he invented an entire generating and distributing system, which, today still bears a striking resemblance to Edison's methods and devices.

The fact that his ideas have endured, is testimony to his extraordinary abilities and foresightedness, for this industry has never lacked progressiveness; has always known an imaginative "urge"; has never feared to expand, develop and to change.

Edison's Lamp

Now, let us consider that incandescent lamp of 1879. Here is the fertile seed of an enterprise, which, in the United States alone, measured in cold, hard figures shows a total capitalization involved of more than 16 billions of dollars.

Labor might measure this situation in terms of gross annual pay roll—which in the United States alone, exceeds 550 millions of dollars. Its employees number better than 250 thousand.

These are *two* ways to measure the electric light and power industry.

I, personally, prefer to measure it in a *third* way, in terms of comfort and well being for America's 140 million of people, in the production, distribution and use of the

**These excerpts from an address delivered by Mr. Tait at the Thomas A. Edison Centennial Luncheon of the Electric and Gas Association of New York, were to be included in the Edison Centennial Section of our February issue, but arrived too late. Because of their exceptionally interesting character and inspirational value we decided to publish them in this, the following issue.*—THE EDITOR.

Circle Lighting Industries

first to present

CIRCLINE—circling the fluorescent field with its newest feature.

Circle Lighting Industries

CEILING FIXTURE—surface mount high gloss white enamel for maximum soft light diffusion, brite chrome lower plate easily detachable for replacing concealed starter. Circline fluorescent utility fixture is designed for bedroom, kitchen, bathroom, and rumpus room. Adaptable for side wall lighting. Over all size: 14⅞" diameter, 4½" depth. Wght. 10 lbs.

General Electric major component parts used throughout.

Quality assured and performance guaranteed.

Circle Lighting Industries

DESK LAMP—statuary bronze plated or metallic grey. Scientifically designed shade, white baked enamel inside. Push button switch in base. Over all size: 14" diameter, 18" height. Wght. 12 lbs.

You can be first in your territory with this new development in the fluorescent field. Circle Lighting Industries, first to recognize the future of the circle fluorescent unit, is manufacturing several new designs of outstanding distinction.

Sold exclusively through recognized wholesale electrical jobbers and distributors.

Write today for price lists and discount arrangements.

Fixture and lamp units individually packaged.
Shipped complete with fluorescent tube.
Available for immediate delivery.

Circle Lighting Industries

3654 West Lawrence Avenue **Chicago 25**

good things of life and in dignity of living.

When Thomas Edison opened the Pearl Street Station, here, in New York City, in September, 1882, the cost of electricity was 24 cents a kilo-watt hour. At the present time (the Centennial Year of Edison's birth) household electricity in the United States sells at an average of 3⅓ cents a kilo-watt hour.

These facts and figures help one to gain a concept of the greatness and importance of this enterprise which grew from that feeble gleam, within a globe of glass, in Thomas Edison's laboratory.

This progress was no haphazard accident. It was achieved by thinking, and working, and by turning back profits into business in a continued and still continuing program to create more service for more people.

As I move about the streets of New York, I have noticed one particularly fine poster on large billboards. They were installed in recognition of the Thomas A. Edison Centennial and bear the signature of The Consolidated Edison Company. Beside a portrait of Mr. Edison is the text, "SERVICE FOR THE WORLD." That is no idle boast. The glow in Mr. Edison's lamp of 1879 *has lighted the way to service for the world.*

Edison's electric lamp was born under the light from gas jets and I recall that many of the early gas men's stomachs turned somewhat "queasy" when the name of Edison was mentioned. Yet the inventor *himself* back in those days, foretold and prophesied a broad and continuing expansion of the markets for gas. Being a participant myself in the gas industry, during most of my business life, I have witnessed this expansion. All of us know that Edison's work immeasurably contributed to it.

Edison—the Man

It was my good fortune, both as a youth and in later years, to know and work and consult with Thomas Edison.

I am sure his influence on me, as a young man, had a great deal to do with whatever capacity I may have developed to do things. Because I was thrilled to be associated with him, diligently worked with him and intently observed all I could. I shall never forget his great facility for concentration on any problem or work in hand. He persistently and continuously pushed ahead for successful conclusions, regardless of time and distractions.

I am certain I must have inherited from my contacts with him, my insatiable desire *always* to learn "what makes things tick," always to question whether or not there may be better and more efficient ways for doing the mental and physical work necessary to our various businesses.

People have asked me whether it is true that Edison worked as hard and as long as his biographers say he did.

As a youth, still in my teens, I became his helper, when he was called in by a manufacturer of pig iron in my old home town of Catasauqua, Pennsylvania, to determine whether he could devise a method for producing pig iron when using anthracite coal. The year was 1893, so that would fix Edison's age at 46, and, while at the time, I was very much younger, despite the great disparity in our ages, his tremendous energy and relentless driving power, literally "wore me down."

However, at the close of each Friday work day, when Mr. Edison left for West Orange, New Jersey, I would promptly go to bed and sleep through until I had acquired sufficient rest and had properly restored my nervous energy. This withdrawal to recreate myself was absolutely essential, so that I might again be fit to tackle the business of keeping pace with the man when he returned, on Tuesdays, to further carry forward the work and problems in hand.

Despite the many honors that came to him during his lifetime, Edison always remained essentially a plain individual; untouched by vanity or pomp. I never cease to smile in recalling, for instance, how Edison went back and forth to his work daily, in an old time "Model T" Ford motor car, familiarly known as a "tin lizzie."

His driver, at times, during the heavy winter weather, seemed to have a penchant for becoming stuck in snow drifts and, on various occasions, enroute to the station to catch my morning train to New York, I saw Mr. Edison assisting the driver to disengage his "Model T" motor car from a snow bank. At least on one occasion, when all efforts had failed to free the "Model T" Edison finally was persuaded to allow me to motor him the short distance to his West Orange laboratory.

I asked him, once, why he clung to his old motor car, without side curtains and offering so little in the way of protection from wind, cold and rain, when obviously, he could have used a more comfortable enclosed car. His reply was that he wanted transportation; not fine appearance.

In preparing my remarks for you today, it pleased me more than I can tell you to go back in my memory for these recollections of a much beloved Old Man, who means so much to all civilization.

If Edison were still here today, and could comment on our scenes of confusion, industrial strife, and general bewilderment, he might have said in pretty much the same words I read in a cartoon that had wide circulation in a recent issue of the New York World-Herald Telegram, which read, "THERE IS NOTHING WRONG WITH THIS COUNTRY THAT GOING BACK TO WORK WOULDN'T CURE."

I have given you the figures of the present-day capitalization of the electric light and power industry, and pointed out that this represents but a partial measure of the present-day development which Edison pioneered. I doubt whether even an approximately accounting, in dollar value, could be made to show the true magnitude of the public's equity in all of the work of Thomas A. Edison.

You will find Edison every day, everywhere—

You turn on a switch and he lights your room. Pick up a telephone and an Edison invention, the "carbon" telephone transmitter, is ready to work for you. He brings you your radio programs. He is back of your phonograph. He is there in every motion picture theater. He is in your typewriter—the waxed paper for your sandwiches

2 FAMOUS LABELS THAT MEAN EXTRA PROFITS ON

HAND MODEL No. 104 4 QT. SIZE

ELECTRIC MODEL No. 404 4 QT. SIZE

Ice Cream FREEZERS

THESE are the labels that identify America's favorite ice cream freezers . . . . made by the 79-year-old J. E. Porter Corporation . . . . They're first choice for attractive styling, easy operation, and popular price . . . . Yes, the Porter line is the line of extra profits.

Heavy current demand for our products prevents us from assuring immediate delivery of all types of Porter freezers. Meanwhile, we'll be glad to send specifications and prices on the complete line, with a promise to fill your orders as fast as conditions permit.

79 YEARS OLD

THE J. E. **PORTER** CORPORATION
OTTAWA, ILLINOIS

MANUFACTURERS OF AMERICA'S FAVORITE ICE CREAM FREEZERS

—the gummed tape that seals your packages.

Every minute of your day, he is with you: Making your world more convenient and more interesting. Yes. He is just about everything.

Edison made this world a better one for us to live in, and, in so doing, he created millions of jobs. These millions of jobs beget still more and more jobs as time ticks on.

Edison's Motion Pictures

Edison's invention of the motor picture camera, in 1889, created an entire new industry; one never envisioned prior to his work.

At first, hardly more than a toy, the motion picture was not only conceived in Edison's mind, but nurtured the infant enterprise well along the road to maturity. He built the first motion picture studio and produced the first pictures. (This original studio is kept at the Edison Laboratory in West Orange, New Jersey, where it is one of the interesting Edisonia relics of the past.)

The Edison-produced "GREAT TRAIN ROBBERY," for example, was the first motion picture to employ the use of a "plot." It was an important milestone in industry's pathway of progress.

Today, the motion picture industry, expanded and broadened by men who picked up and carried on Edison's work, is an important part of our national framework, for, in addition to providing entertainment for the millions, it is used extensively in education and in industrial training.

To give you some ideas of what has grown from just this one of Edison's inventions, the motion picture industry now has a capital valuation of approximately 2¾ billions of dollars; employs better than 205,000 persons; pays these persons annual wages and salaries exceeding 450 millions of dollars, and in 1946, did a gross yearly business of close to 2½ billions of dollars.

Edison's Phonograph

The phonograph, incidentally, furnished Edison with the inspiration to invent the motion picture, in order "to do for the eye, what the phonograph does for the ear." The close association of the two, in Edison's mind, is shown by the fact that he combined both in his motion picture, making the first projected motion picture a "talkie."

In 1887, Edison had his mechanics build a crude little instrument, which worked the first time it was tried, by capturing the sound of the human voice. Today, more than 22 million home phonographs are in use. Its commercial counterpart, the so-called "juke box," provides music in 500,000 establishments, and the public will buy more than 200 million phonograph "records" in 1947.

In his later life, Edison was asked "through what achievement do you prefer to be remembered by posterity?" To this question, Edison replied, "the *phonograph.*" It was undoubtedly his favorite invention, and he certainly counted it among the most valuable of all his works.

I could quote you facts and figures for many other great industries which either were started by Edison, or were improved, expanded, or made possible by his inventions, and scientific discoveries. The telegraph, telephone, electric traction, electronics, these, and many lesser known components of twentieth century living owe much to the work that Edison did.

Of the great lessons to be learned from the life, work and inventions of Thomas A. Edison, none could be more in keeping with the times than his philosophy that each new attainment is but a vantage point from which to search out new goals ahead.

A lesser man than Edison might have been satisfied, for example, with the invention of the phonograph. Certainly, Edison could not have been blamed had he done so, because that achievement, alone, would have provided a full lifetime of work and compensation. But, by not being satisfied; by constantly striving to open the portals to progress, Edison went forward from one achievement to another, constantly enlarging mankind's knowledge and benefits.

It was this spirit, and these practices, that enabled Mr. Edison, in his twilight years, to produce rubber from goldenrod, even though it meant months of study and research in *botany*, a field in which he (then an old man) had to begin as a groping neophyte. He undertook this research to provide his country with an emergency supply of rubber in the event of another war.

Edison's Lesson for America

When one considers the life and career of Mr. Edison, one is struck by the realization that within his record of enterprise and accomplishments, lies a lesson for America to absorb and properly comprehend.

He did not invent the electric light, the phonograph, the motion picture, or any other of his more than a thousand creations, by dodging work, restricting production and output, or refusing to "think"; he did all of those things because hard, intelligent work and creative thinking formed part of his daily creed.

I do not mean to imply that everyone should work seventy, eighty and even ninety hours a week, as Edison did. Today it is neither necessary nor desirable, because men like Edison have provided us with means at hand to produce, within a few hours, that which would have taken weeks, or longer, to produce, not so many years ago.

I would like to suggest that an America, still struggling with the problem of a successful re-conversion to peace (much more than a full year after the cessation of hostilities) might well find the solution to its problems by taking a leaf from Edison's biography. His life's work and accomplishments challenge us to more diligent efforts, to greater production through clear thinking, yes, clear constructive thinking, to the end that we may make more things cheaper; sell more things faster; create more and more jobs, and thereby better our country's economic situation in every way and in every direction.

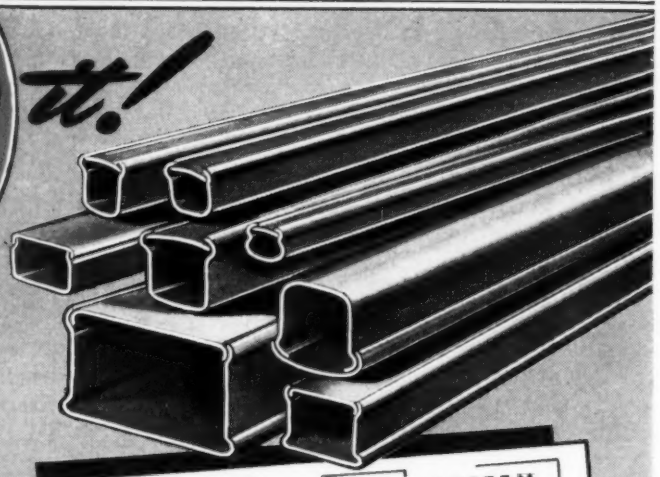
America, today, can draw a great lesson from the study of the life of Thomas A. Edison. The essence of that lesson is that we should emulate him in working harder, emulate him in a better adherence to the Golden Rule, which he diligently practiced, and emulate him in a willingness to patiently think each problem through to its correct conclusion.

I believe these suggestions indicate the "RIGHT ROAD" to follow and it surely is "THE AMERICAN WAY."

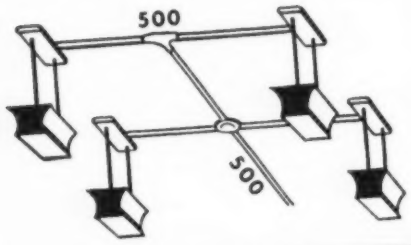
GOOD SPECIFICATIONS

say WIREMOLD it!

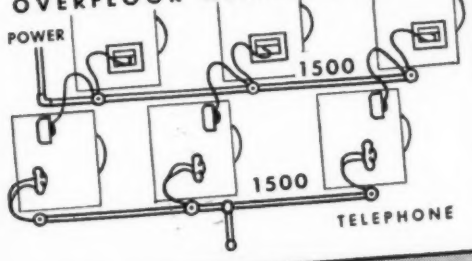
FROM PANEL BOX TO OUTLETS



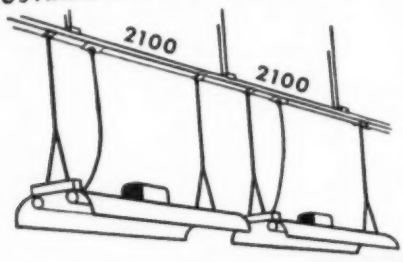
EXTENSION WIRING



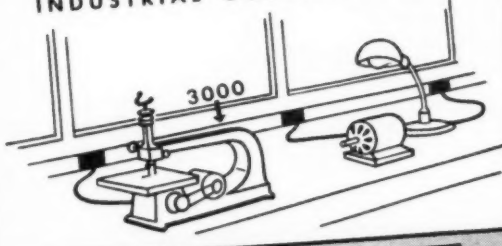
OVERFLOOR WIRING SYSTEM



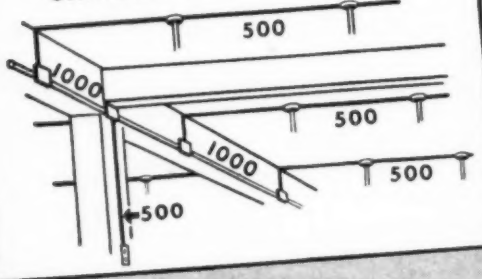
INDUSTRIAL FLUORESCENT LIGHTING



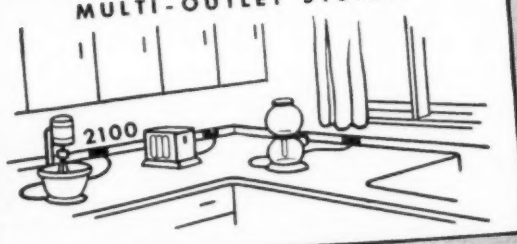
INDUSTRIAL OUTLET SYSTEM



CIRCUIT WIRING SYSTEM



MULTI-OUTLET SYSTEM



THE WIREMOLD COMPANY
HARTFORD 10, CONNECTICUT

Know your WIREMOLD

NEMA

.... MORE THAN ADEQUATE WIRING

Sold through ELECTRICAL WHOLESALERS and
INSTALLED by ELECTRICAL CONTRACTORS Everywhere

FARM MARKET EXPANDING

(*Continued from page 67*)

tributors to give them more than a little attention.

Wise wholesalers have already learned that they can supply the distribution service for the rural market. As more and more farms become electrified, the need for wiring materials and lighting equipment gives way to the demand for electrical machinery and appliances. Many wholesalers with active rural sales cultivation programs are showing the farmers how they can increase their production at less cost, gain conveniences and comforts and improve their repairs and maintenance.

Although many in the electrical industry have found it difficult to accept the "tax-free" co-ops, the fact remains that the farmers are in need of and ready to buy any and all electrical equipment they can get their hands on.

REA Photo

Beginning on this page, a tabulation of co-ops which have been granted loans over the past few months has been given. From this list wholesalers serving rural areas can obtain a quick, concise picture of the REA part of the farm market in their territory. The cooperative companies will use the loans to construct power lines, new substations and for other improvements for the systems. The tabulation gives the names of the cooperatives receiving the loans, the amounts of the loans and the number of consumers added.

Despite bitter opposition by some branches of the electrical industry and a strong feeling by business against the "tax-free" co-ops, Mr. Wickard insists that the REA Administration is still recommending strongly to farmer-owned cooperatives among its borrowers that they refrain from selling and servicing electrical equipment as a regular part of their business. Mr. Wickard has also pointed out that the wholesalers' salesman must equip himself properly in order to handle and sell the rural market. The salesman must know a great deal about this new market and must realize that selling the farmer and the co-op is not the same as selling the urban market.

STATE	CITY OR COUNTY	NAME OF CO-OP.	LOAN	NO. NEW CONSUMERS
ALABAMA	Andalusia	Alabama	$3,350,000	...
	Guin	Tombigbee	771,000	2,358
	Jackson	Clarke-Washington	565,000	922
	Troy	South Alabama	760,000	1,491
ALASKA	Palmer	Matanuska	40,000	37
ARIZONA	Buckeye	Ma-Yu	485,000	272
	Cottonwood	Verde	260,000	258
	Marana	Trico	600,000	572
	Pima	Graham	292,500	...
ARKANSAS	Arkadelphia	South Central Ark.	63,000	116
	Augusta	Woodruff	335,000	933
	Camden	Ouachita	433,000	1,217
	Clinton	Petit Jean	208,000	364
	Corning	Clay County	188 000	667
	Fayetteville	Ozarks Rural	545,000	1,195
	Hamburg	Ashley-Chicot	174,000	232
	Jacksonville	First Electric	750,000	2,037
	Mena	Rich Mountain	153,000	377
	Newport	Farmers	195,000	328
	Ozark	Arkansas Valley	250,000	682
	Salem	North Arkansas	404,000	840
	Star City	C & L Rural	363,000	1,011
	Texarkana	Southwest Arkansas	274,000	857
CALIFORNIA	Alturas	Surprise Valley	465,000	362
	Hornbrook	Klamath River	240,000	341
	Portola	Plumas-Sierra	50,000	40
COLORADO	La Junta	Southeast Colorado	262,000	205
	La Junta	Southeast Colorado	110,000	...
	Limon	Mountain View	421,000	371
	Littleton	Intermountain Rural	343,000	342
	Pueblo	San Isabel	145,000	290
	Salida	Sangre de Cristo	82,000	...
DELAWARE	Greenwood	Delaware Rural	227,000	768
	Greenwood	Delaware Rural	524,000	1,910
FLORIDA	Chiefland	Central Florida	390 000	622
	Chiefland	Central Florida	50,000	150
	Dade City	Withlacooche River	114,000	212
	DeFuniak Spr.	Choctawhatchee	15 000	...
	Fort Myers	Lee County	50,000	150
	Graceville	West Florida	503,000	1,018
	Jay	Escambia River	287,000	630
	Live Oak	Suwannee Valley	50,000	150
	Madison	Tri-County	188,000	348
	Travernier	Florida Keys	395,000	224
	Wauchula	Peace River Valley	50,000	150
GEORGIA	Alamo	Little Ocmulgee	50,000	150
	Alamo	Little Ocmulgee	69,000	150
	Alma	Satilla Rural	35,000	...
	Alma	Satilla Rural	190,000	448
	Barnesville	Lamar	96,000	257
	Cairo	Grady County	89,000	...
	Carrollton	Carroll Electric	324,000	688
	Carrollton	Carroll Electric	50,000	...
	Carrollton	Carroll Electric	45,000	...
	Cumming	Forsyth County	140,000	432
	Donalsonville	Three Notch	69,000	159
	Dudley	Oconee	185,000	309
	Jasper	Amicalola	312,000	716
	Jefferson	Jackson	82,000	211
	La Grange	Troup County	50,000	150
	La Grange	Troup County	307,000	857
	La Grange	Troup County	375,000	899
	Marietta	Cobb County Rural	65 000	...
	Marietta	Cobb County Rural	50,000	150
	Metter	Excelsior Electric	358,000	717
	Midway	Coastal Electric	50,000	150
	Moultrie	Colquitt County Rural	814 000	1,581
	Moultrie	Colquitt County Rural	50,000	...
	Nahunta	Okefenoke Rural	68,000	249
	Sandersville	Washington County	475,000	967
	Thomaston	Upson County	50 000	150
	Vienna	Middle Georgia	975,000	2,487
	Young Harris	Blue Ridge	100,000	251
	Young Harris	Blue Ridge	68,000	...
	Mackay	Lost River	60,000	...
IDAHO	Sandpoint	Northern Idaho Rural	265,000	199
ILLINOIS	Bloomington	Corn Belt	148,000	293
	Breese	Clinton County	135,000	200
	Camp Point	Adams Electric	850,000	1,390
	Canton	Spoon River	138 000	342
	Carlinsville	M. S. M. Electric	125,000	128
	Carthage	Western Illinois	400,000	730
	Champaign	Illini Electric	136,000	152
	Divernon	Rural Electric	160,000	335
	Dongola	Southern Illinois	20,000	...
	Dongola	Southern Illinois	700,000	1,673
	Greenville	Southwestern	225 000	487
	Harrisburg	Southeastern Illinois	700,000	867
	Macomb	McDonough	265,000	391
	Paris	Edgar Electric	42,000	173

"What you've always wanted... FLEUR·O·LIER always had!"

Here's what one utility executive looks for in fluorescent lighting fixtures:

"If the lamp and fixture manufacturers could work up a practical program to promote cooperation among distributors, contractors, and central stations, we would certainly be glad to tie-in with it."

This is the kind of promotion in the lighting business that results in distinct benefits not only to the trade, but to the *user* as well. See why:

Here's what CERTIFIED FLEUR-O-LIERS have done about it:

Manufacturers of fixtures and accessory equipment contribute their dollars to create an advertising program that *develops* the market for commercial fluorescent lighting and *educates* the market to higher standards of lighting performance and service. Because of high standards set for FLEUR-O-LIER equipment, lighting companies and lamp manufacturers can endorse and recommend it. Architects, distributors and contractors can specify it with utmost confidence. FLEUR-O-LIER deserves the support of everyone who wants to see such standards created and maintained.

FLEUR-O-LIERS, made by a group of leading fluorescent fixture makers, are built to rigid specifications for performance, construction and service. They are tested, checked and CERTIFIED as meeting those specifications by Electrical Testing Laboratories, Inc., and identified by the FLEUR-O-LIER Label on every fixture.

FLEUR·O·LIER

Manufacturers

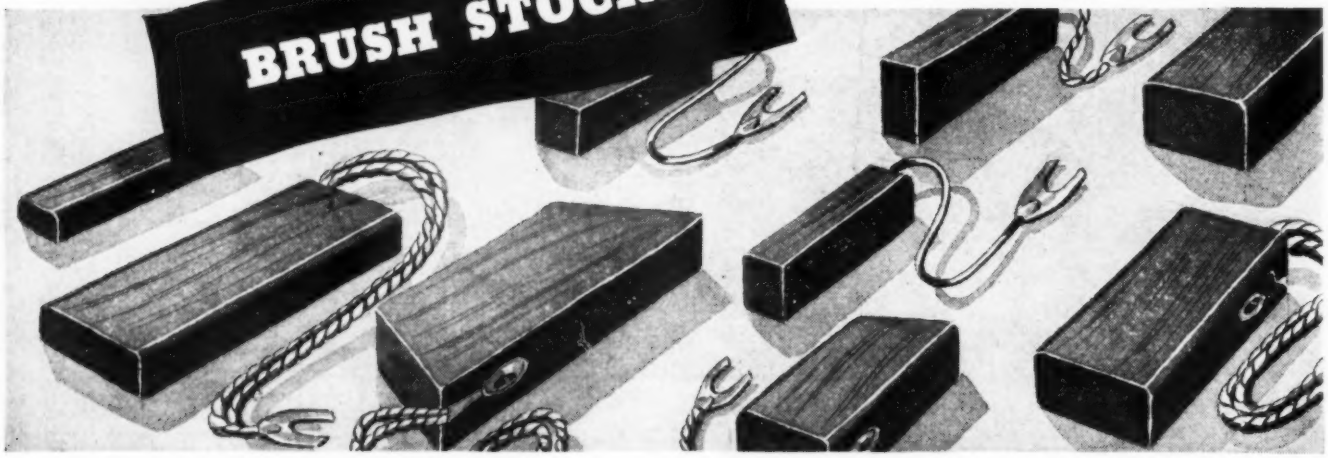
Fleur-O-Lier is not the name of an individual manufacturer, but of a group of 27 leading fixture manufacturers. Participation in the FLEUR-O-LIER MANUFACTURERS' program is open to any manufacturer who complies with FLEUR-O-LIER requirements.

REA LOANS continued

STATE	CITY OR COUNTY	NAME OF CO-OP.	LOAN	NO. NEW CONSUMERS
	Paxton	Eastern Illinois	325,000	609
	Shelbyville	Shelby Electric	720,000	1,246
	Steeleville	Egyptian Electric	165,000	352
INDIANA	Angola	Steuben County Rural	50,000	85
	Columbia City	Whitley County Rural	120,000	237
	Corydon	Harrison County Rural	45,000	180
	Corydon	Harrison County Rural	365,000	636
	Delphi	Carroll County Rural	25,000	85
	Greensburgh	Decatur County Rural	140,000	147
	Huntington	Huntington Co. Rural	80,000	...
	Linden	Tipmont Rural	175,000	425
	Linden	Tipmont Rural	70,000	...
	Martinsville	Morgan County Rural	115,000	...
	Osgood	Southeastern Indiana	320,000	765
	Ossian	Allen-Wells	50,000	184
	Portland	Jay County Rural	70,000	240
	Rochester	Fulton Rural	130,000	401
	Rushville	Rush County Rural	180,000	407
	Shelbyville	Shelby County Rural	150,000	522
	Sullivan	Sullivan County Rural	115,000	176
	Tell City	Southern Indiana Rural	85,000	160
	Tell City	Southern Indiana Rural	50,000	80
	Vincennes	Knox County Rural	775,000	1,663
	Williamsport	Warren County Rural	85,000	179
IOWA	Albia	Chareton Valley	290,000	577
	Allison	Butler County Rural	300,000	227
	Brooklyn	T. I. P. Rural	260,000	361
	Cedar Rapids	Central Iowa	5,000,000	...
	Corning	Adams County	125,000	229
	Cresco	Hawkeye Tri-County	290,000	415
	Davenport	Eastern Iowa	350,000	474
	Greenfield	Farmers' Electric	625,000	1,420
	Greenfield	Southwestern Federated	1,300,000	...
	Grundy Center	Grundy County	150,000	75
	Guthrie Center	Guthrie County Rural	170,000	272
	Hampton	Franklin Rural	220,000	185
	Harlan	Nishnabotna Valley	355,000	615
	Humboldt	Humboldt County	51,000	...
	Ida Grove	Ida County Rural	60,000	95
	Jefferson	Greene County	305,000	646
	Le Mars	Plymouth Electric	315,000	333
	Marion	Linn County Rural	150,000	100
	Mt. Pleasant	South Eastern Iowa	535,000	768
	Orange City	Sioux Electric	260,000	457
	Osceola	Clark Electric	250,000	262
	Potsville	Allamakee-Clayton	300,000	560
	Rock Rapids	Lyon Rural	175,000	171
	Rockwell City	Calhoun County	24,000	...
	Sac City	Sac County Rural	50,000	10
	Silbley	Osceola Electric	70,000	105
	Storm Lake	Buena Vista	235,000	201
	Thompson	Winnebago Rural	78,000	154
KANSAS	Altamont	Twin Valley	442,000	473
	Belleville	North Central Kansas	535,000	848
	Burlington	Coffey County Rural	257,000	337
	Cheney	Sedgwick County	306,000	398
	Clay Center	C. & W. Rural	420,000	441
	Council Grove	Flint Hills Rural	465,000	600
	Dighton	Lane-Scott	391,000	499
	El Dorado	Butler Rural	342,000	356
	Hutchinson	Ark Valley	23,500	...
	Iola	Cooperative	412,000	595
	Lindsborg	Smoky Valley	175,000	246
	Troy	Doniphan	80,000	86
KENTUCKY	Bardstown	Salt River	450,000	714
	Campbellsville	Taylor County Rural	410,000	975
	Cynthiana	Harrison County Rural	1,000,000	2,101
	Danville	Inter-County	270,000	688
	Elizabethtown	Nolin Rural	300,000	517
	Flemingsburg	Fleming-Mason	940,000	1,731
	Glasgow	Farmers Rural	459,000	1,162
	Henderson	Henderson-Union	105,000	...
	Mayfield	West Kentucky	495,000	1,276
	McKee	Jackson County Rural	580,000	1,579
	Owensboro	Green River	632,000	1,284
	Owenton	Owen County Rural	575,000	991
	Nicholasville	Blue Grass	270,000	447
	Shelbyville	Shelby Rural	220,000	200
	Somerset	South Kentucky	62,500	250
	West Liberty	Licking Valley Rural	655,000	1,608
	Winchester	Clark Rural	295,000	624
LOUISIANA	Ferriday	Concordia Electric	140,000	254
	Franklington	Wash.-St. Tammany	183,000	460
	Haynesville	Haynesville Electric	55,000	...
	Houma	South Louisiana	58,000	188
	New Roads	Pointe Coupee	49,000	198
MAINE	Meddybemps	Denny's River	30,000	...
MARYLAND	Denton	Choptank	50,000	...
	Denton	Choptank	50,000	200
MICHIGAN	Adrian	Southeastern Michigan	120,000	...
	Boyne City	Top O'Michigan	130,000	547
	Cassopolis	Fruit Belt	245,000	730
	Gladstone	Alger-Delta	200,000	522
	Newaygo	O and A Electric	125,000	614
	Onaway	Presque Isle	275,000	...
	Onaway	Presque Isle	12,000	...
	Onaway	Presque Isle	485,000	871
	Onaway	Presque Isle	50,000	150
	Portland	Tri-County	50,000	184
	Scottville	Western Michigan	25,000	70
	Traverse City	Cherryland	40,000	125
	Ubly	Thumb Electric	50,000	...
MINNESOTA	Alexandria	Douglas County	575,000	875
	Bagley	Clearwater-Polk	325,000	535
	Bemidji	Beltrami	225,000	472
	Brainerd	Crow Wing	400,000	622
	Fairfax	Renville-Sibley	325,000	419
	Glencoe	McLeod	285,000	363
	Halstad	Red River Valley	520,000	575
	Jackson	Federated Rural	300,000	593
	Mahnomen	Wild Rice	480,000	796
	Maple Lake	Rural	250,000	...
	Maple Lake	Rural	50,000	...
	Maple Lake	Wright-Hennepin	330,000	853
	Montevideo	Minnesota Valley	300,000	209
	Owatonna	Steele-Waseca	350,000	250
	Park Rapids	Itasca-Mantrap	425,000	603
	Pelican Rapids	Lake Region	550,000	1,111
	Red Lake Falls	Red Lake	415,000	554
	Rochester	People's	285,000	357
	Roseau	Roseau Electric	550,000	717
	Rushford	Tri-County	55,000	...
	Rushford	Tri-County	450,000	607
	Tyler	Lyon-Lincoln	490,000	719
	Virginia	Northern Electric	585,000	1,265
	Wadena	Todd-Wadena	485,000	670
	Warren	P. K. M. Electric	400,000	388
	Warroad	Border County	655,000	...
	Wells	Wells Electric	55,000	101
	Wheaton	Traverse	800,000	939
MISSISSIPPI	Columbus	Four-County	325,000	873
	Hollandale	Twin County	650,000	1,671
	Iuka	Tishomingo	645,000	2,037
	Laurel	Jones County	740,000	1,907
	Lorman	Southwest Mississippi	830,000	1,611
	McComb	Magnolia	825,000	1,760
	Pontotoc	Pontotoc Electric	740,000	2,485
	Taylorsville	Southern Pine	1,375,000	2,082
	Taylorsville	Southern Pine	1,375,000	...
	Tupelo	Tombigbee	775,000	2,088
	Tupelo	Tombigbee	31,000	...
	Yazoo City	Yazoo Valley	580,000	1,160
MISSOURI	Bolivar	Southwest	490,000	1,105
	Butler	Osage Valley	140,000	255
	Cassville	Barry	110,000	194
	Chillicothe	Farmers	760,000	1,303
	Columbia	Boone County	300,000	462
	El Dorado Sp.	Osage	228,000	400
	Fulton	Callaway	65,000	85
	Hayti	Pemiscot Dunklin	440,000	1,817
	Higginsville	West-Central	303,000	437
	Hollister	White River	266,000	604
	Lamar	Barton County	358,000	587
	Linn	Three Rivers	373,000	526
	Mansfield	Se-Ma-No Electric	271,000	463
	Marshfield	Webster	315,000	517
	Maryville	Nodaway-Worth	332,000	411
	Mexico	Consolidated	150,000	50
	Mt. Vernon	Ozark	325,000	702
	Neosho	New-Mac	477,000	715
	New London	Ralls County	262,000	489
	Palmyra	Missouri	78,000	193
	Savannah	Northwest	208,000	401
	Sedalia	Central Missouri	305,000	444
	Sikeston	Scott-New	300,000	791
	West Plains	Howell-Oregon	533,000	913
MONTANA	Fairfield	Sun River	57,000	62
	Fairfield	Sun River	625,000	420
	Huntley	Yellowstone Valley	325,000	169
	Hysham	Med-Yellowstone	25,000	19
	Livingston	Park	175,000	176
	Livingston	Park	185,000	158
	Missoula	Missoula	18,000	42
	Shelby	Maias River	85,000	...
	Sidney	Lower Yellowstone	220,000	273
NEBRASKA	Battle Creek	Madison County	712,000	1,063
	Broken Bow	Custer Public	677,000	810
	Cambridge	Twin Valleys	438,000	447
	Columbus	Cornhuster	636,000	881
	Creighton	North Central Nebr.	539,000	721
	David City	Butler County	355,000	616
	Emerson	Northeast Nebraska	330,000	533
	Grand Island	Southern Nebraska	674,000	1,146
	Grant	Midwest	430,000	465
	Lexington	Dawson County	608,000	1,129
	Lincoln	Norris Rural	310,000	480
	Ne'son	South Central	760,000	1,014
	Seward	Seward	182,000	314
	Spencer	Niobrara Valley	520,000	583
	Stanton	Stanton County	220,000	328
	Tekamah	Burt County	226,000	384
	Wayne	Wayne County	260,000	376
	York	York County	637,000	1,064
N.HAMPSHIRE	Plymouth	New Hampshire	95,000	185
NEW MEXICO	Clovis	Farmers	490,000	387
	Portales	Roosevelt	520,000	696
	Taos	Kit Carson	710,000	791
NEW YORK	Delhi	Delaware County	95,000	174
N.CAROLINA	Asheboro	Randolph	40,000	...
	Beaufort	Carteret-Craven	97,000	224

CARBON BRUSHES
GRAPHITE BRUSHES
BRUSH STOCKS

COMPETITIVE SEALED BID SALE



Take advantage of this great money-saving opportunity. This *unused*, high quality electrical equipment for electrical motors, generators, and other rotating electrical equipment can be easily purchased at a mere fraction of your government's acquisition cost. Large quantities are available in various grades, sizes and shapes. These brushes and brush stocks are offered on competitive sealed bid sale basis by War Assets Administration Regional Offices. Large inventories are held in Cincinnati, Richmond, Chicago, Philadelphia, San Francisco and other Regions. *Act now* to profit in this "fraction-of-cost" sale of Government Owned Surplus Material.

HOW TO BUY:

Valuable materials, such as these brushes and brush stocks, are constantly being offered by all the Regional Offices listed below. Dates of sales—and conditions governing all transactions—will be sent to you upon request. Request should be made directly to Regional Offices.

To keep completely informed on commodities, inventories, minimum and maximum purchases, sales dates, etc., requests should be made to be placed on the mailing lists of each and every Regional Office for the specific types of material or equipment which could serve your needs.

OFFICE OF GENERAL DISPOSAL

WAR ASSETS ADMINISTRATION

GOVERNMENT WAA SURPLUS

Offices located at: Atlanta • Birmingham • Boston • Charlotte • Chicago • Cincinnati • Cleveland • Dallas Denver • Detroit • Fort Worth • Helena • Houston • Jacksonville • Kansas City, Mo. • Little Rock Los Angeles • Louisville • Minneapolis • Nashville • New Orleans • New York • Omaha • Philadelphia Portland, Ore. • Richmond • Salt Lake City • St. Louis • San Antonio • San Francisco • Seattle • Spokane • Tulsa

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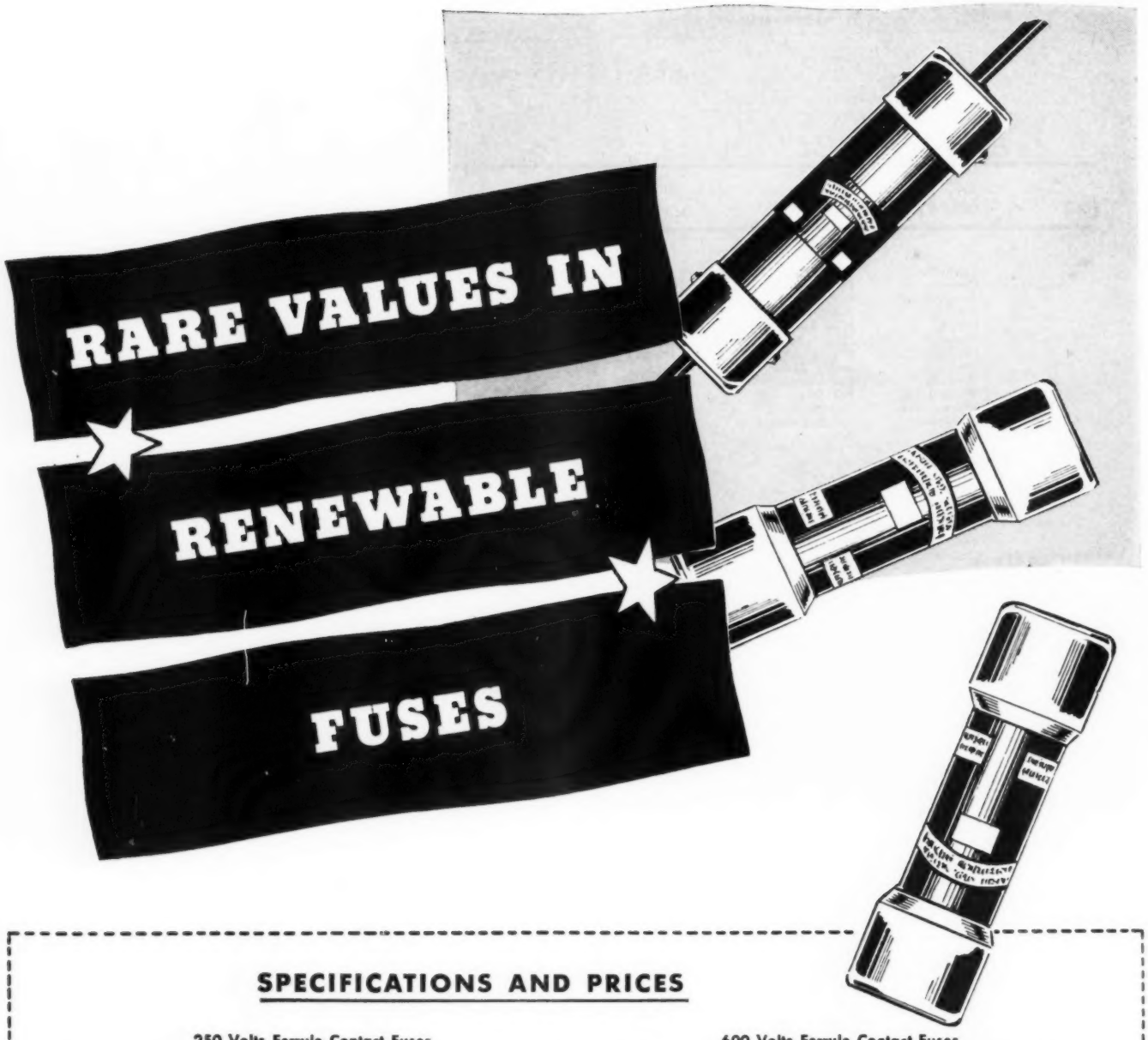
REA LOANS continued

STATE	CITY OR COUNTY	NAME OF CO-OP.	LOAN	NO. NEW CONSUMERS
	Cornelius	Cornelius	34,000	...
	Dobson	Surrey-Yadkin	160,000	391
	Forest City	Rutherford	235,000	718
	Hillsboro	Piedmont	291,000	697
	Lenoir	Blue Ridge	1,220,000	2,754
	Marshall	French Brood	420,000	...
	Shallotte	Brunswick	198,000	502
	Stedman	South River	367,000	1,106
	Tarboro	Edgecombe Martin	200,000	813
	Wadesboro	Pee Dee	231,000	154
	Waynesville	Haywood	218,000	614
N. DAKOTA	Bottineau	North Central	310,000	286
	Cando	Baker	500,000	433
	Grand Forks	Nodak	800,000	624
	Grand Forks	Minnkota	300,000	...
	Grand Forks	Minnkota	2,500,000	...
	Grand Forks	Minnkota	166,000	...
	Linton	Kem Electric	150,000	33
	Milnor	R. S. R. Electric	600,000	805
	Velva	Verendrye	250,000	106
	Williston	Williams	300,000	312
OHIO	Coshocton	Tuscarawas-Coshocton	45,000	...
	Gallipolis	Buckeye	225,000	...
	Gallipolis	Buckeye	270,000	585
	Gallipolis	Buckeye	21,000	...
	Greenville	Darke Rural	50,000	150
	Hamilton	Butler	55,000	135
	Kenton	United Rural	85,000	100
	Marietta	Washington	440,000	875
	Montpelier	North Western	45,000	170
	Mount Gilead	Morrow	105,000	229
	Piqua	Pioneer	155,000	95
	Piqua	Pioneer	240,000	367
	St. Clairsville	Belmont	50,000	110
	Utica	Licking	210,000	532
OKLAHOMA	Ada	People's	573,000	1,121
	Binger	Caddo	402,000	586
	Blackwell	Kay	372,000	361
	Cherokee	Alfalfa	353,000	432
	Collinsville	Verdigris Valley	393,000	657
	Cordell	Kiwash	441,000	907
	Durant	Southeastern	363,000	680
	Hollis	Harmon	303,000	506
	Hollis	Harmon	67,000	139
	Hooker	Tri-County	300,000	311
	Hugo	Choctaw	305,000	598
	Kingfisher	Cimarron	480,000	947
	Okmulgee	East Central	115,000	121
	Sayre	Northfork	326,000	645
	Seminole	Canadian Valley	388,000	462
	Stigler	Cookson Hills	297,000	481
	Stillwater	Central Rural	326,000	456
	Tipton	Southwest	250,000	348
	Vinita	Northwest	277,000	612
	Walters	Cotton	335,000	455
OREGON	Corvallis	Benton-Lincoln	505,000	531
	Eugene	Lane County	100,000	4
	Sandy	Northeast Clackamas	290,000	489
	Tillamook	Tillamook	95,000	23
	Vale	Malheur	25,000	...
	Western	Eastern Oregon	215,000	358
PENNA.	Clearfield	Central	10,000	...
	Indiana	Southwest Central	99,000	200
	Mansfield	Tri-County	75,000	200
	Mansfield	Tri-County	68,000	117
S. CAROLINA	Abbeyville	Little River	40,000	99
	Bennettsville	Marlboro	7,000	...
	Edgefield	Edgefield	25,000	...
	Marion	Marion	25,000	...
	Matthews	Tri-County	237,000	388
	Pickens	Blue Ridge	724,000	1,929
	Ridgeland	Palmetto	219,000	483
	Sumter	Black River	50,000	150
	Winnsboro	Fairfield	230,000	559
	Winnsboro	Fairfield	50,000	150
	York	York	175,000	283
S. DAKOTA	Alcester	Lincoln-Union	215,000	351
	Armour	Douglas	575,000	783
	Burke	Rosebud	500,000	571
	Burke	Rosebud	1,100,000	...
	Colman	Sioux Valley	195,000	378
	Colman	Sioux Valley	404,000	...
	De Smet	Kingsbury	373,000	374
	Elk Point	Union County	125,000	230
	Freeman	Turner-Hutchinson	332,000	...
	Hayti	Hamlin	400,000	511
	Milbank	Whetstone Valley	250,000	253
	Miller	Ree Electric	500,000	487
	Salem	McCook	269,000	...
	Vermillion	Clay-Union	350,000	550
	Vermillion	Clay-Union	396,000	...
	Watertown	Codington-Clark	125,000	135
	Webster	Lake Region	350,000	456
TENNESSEE	Brownsville	Southwest	1,050,000	2,521
	Carthage	Upper Cumberland	700,000	1,848
	Centerville	Meriwether Lewis	620,000	1,183
	Decatur	Volunteer	525,000	746
	Dickson	Town of Dickinson	425,000	751
	LaFollette	City of LaFollette	250,000	890
	Madisonville	Fort Loudoun	60,000	...
	McMinnville	Caney Fork	1,025,000	2,356
	Mountain City	Mountain	405,000	959
	Murfreesboro	Middle Tennessee	685,000	1,366
	Paris	City of Paris	685,000	1,533
	Selmer	Pickwick	330,000	431
	Shelbyville	Duck River	810,000	1,956
	Somerville	Chicasaw	475,000	1,108
	South Pittsburg	Sequachee	820,000	1,863
TEXAS	Bandera	Bandera	65,000	646
	Bellville	San Bernard	200,000	408
	Bluegrove	J-A-C Electric	240,000	254
	Brady	McCulloch	51,000	200
	Childress	Gate City	83,000	245
	Coleman	Coleman	590,000	997
	Colorado City	Lone Wolf	100,000	115
	Corsicana	Navarro	50,000	200
	Cost	Guadalupe Valley	425,000	804
	Cost	Guadalupe Valley	22,000	...
	Crockett	Houston County	273,000	492
	Douglassville	Bowie-Cass	507,000	1,310
	Eddy	Tri-County	8,000	...
	Eldorado	Southwest Texas	260,000	240
	Floydada	Floyd County	334,000	511
	Giddings	Lower Colorado	485,000	942
	Greenville	Farmers	215,000	561
	Groesbeck	Limestone	17,000	...
	Hamilton	Hamilton	230,000	718
	Henderson	Rusk	225,000	663
	Hondo	Medina	260,000	539
	Itasca	Hill County	300,000	710
	Johnson City	Pedernales	620,000	828
	Johnson City	Pedernales	620,000	828
	Junction City	Kimball	300,000	296
	Karnes City	Karnes	228,000	415
	Kaufman	Kaufman	440,000	1,084
	LaGrange	Fayette	575,000	1,231
	Littlefield	Lamb County	175,000	290
	Lometa	Lometa	11,000	...
	Lubbock	South Plains	405,000	746
	Mart	Mart	20,000	...
	McGregor	McLennan	160,000	456
	Memphis	Hall County	175,000	267
	Muenster	Cooke County	240,000	160
	Muleshoe	Bailey County	416,000	676
	Olney	Fort Belknap	230,000	454
	Paris	Lemar County	249,000	926
	Roby	Midwest	395,000	553
	Rusk	Cherokee County	400,000	898
	San Angelo	Concho Valley	260,000	332
	San Augustine	Deep East Texas	470,000	935
	Seymour	B-K Electric	245,000	952
	Spur	Dickens County	450,000	755
	Stanton	Cap Rock	80,000	96
	Stanton	Cap Rock	290,000	517
	Stephenville	Erath County	373,000	794
	Sinton	San Patricio	250,000	345
	Tahoka	Lyntegar	415,000	751
	Tulia	Swisher County	183,000	237
	Valley Mills	Valley Mills	8,000	...
	Van Alstyne	Grayson-Collin	555,000	1,894
	Victoria	Victoria	100,000	276
	Wellington	Greenbelt	285,000	456
UTAH	Mount Emmons	Moon Lake	365,000	258
VERMONT	Barre	Washington	640,000	630
	Johnson	Vermont	50,000	200
VIRGINIA	Appomattox	Appomattox	302,000	521
	Bowling Green	Virginia	134,000	377
	Bowling Green	Virginia	92,000	...
	Crewe	Southside	1,080,000	1,828
	Dayton	Shenandoah Valley	181,000	535
	Dayton	Shenandoah Valley	250,000	...
	Jonesville	Powell Valley	887,000	2,096
	Leesburg	Tri-County	138,000	228
	Lovingston	Central Virginia	92,000	180
	Millboro	BARC Electric	10,000	...
	Suffolk	Community	124,000	259
	Warsaw	Northern Neck	461,000	493
	Waverly	Prince George	72,000	227
WASHINGTON	Davenport	Lincoln	87,000	65
	Ellensburg	Public Utility	35,000	32
	Nespelem	Nespelem Valley	245,000	182
	Newport	Pend Oreille County	140,000	463
	Tanner N. Bend	Mutual Power	15,000	40
	Spokane	Inland Empire	200,000	...
	White Salmon	Public Utility	320,000	...
W. VIRGINIA	Clarksburg	Harrison Rural	50,000	150
WISCONSIN	Barron	Barron County	265,000	474
	Bl. River Falls	Jackson	67,000	103
	Centuria	Polk-Burnett	105,000	320
	Darlington	Lafayette	140,000	308
	Iola	Waupaca	110,000	292
	Iron River	Hayfield	105,000	155
	La Crosse	Dairyland	8,000,000	592
	Ladysmith	Jump River	185,000	287
	Oakdale	Oakdale	160,000	374
	Richland Ctr.	Richland	50,000	89
WYOMING	Basin	Big Horn Rural	237,000	273
	Freedom	Lower Valley	179,000	...
	Linglo	Wyrulec County	367,600	291
	Sundance	Tri-County	855,000	823



SPECIFICATIONS AND PRICES

250 Volts Ferrule Contact Fuses

AMPERAGE	Unit	Wholesaler	Retailer Small	Retailer Large
3 Amperes	Each	$ .10	$ .14	$.135
6 Amperes	Each	.10	.14	.135
10 Amperes	Each	.10	.14	.135
15 Amperes	Each	.10	.14	.135
20 Amperes	Each	.10	.14	.135
25 Amperes	Each	.10	.14	.135
30 Amperes	Each	.10	.14	.135
35 Amperes	Each	.20	.28	.27
40 Amperes	Each	.20	.28	.27
45 Amperes	Each	.20	.28	.27
50 Amperes	Each	.20	.28	.27
60 Amperes	Each	.20	.28	.27

600 Volts Ferrule Contact Fuses

AMPERAGE	Unit	Wholesaler	Retailer Small	Retailer Large
3 Amperes	Each	.25	.35	.335
6 Amperes	Each	.25	.35	.335
10 Amperes	Each	.25	.35	.335
15 Amperes	Each	.25	.35	.335
20 Amperes	Each	.25	.35	.335
25 Amperes	Each	.25	.35	.335
30 Amperes	Each	.25	.35	.335
35 Amperes	Each	.40	.56	.54
40 Amperes	Each	.40	.56	.54
45 Amperes	Each	.40	.56	.54
50 Amperes	Each	.40	.56	.54
60 Amperes	Each	.40	.56	.54

250 Volts Knife Blade Contact ruses

AMPERAGE	Unit	Wholesaler	Retailer Small	Retailer Large
70 Amperes	Each	$ .45	$ .63	$ .60
80 Amperes	Each	.45	.63	.60
90 Amperes	Each	.45	.63	.60
100 Amperes	Each	.45	.63	.60
110 Amperes	Each	1.00	1.40	1.33
125 Amperes	Each	1.00	1.40	1.33
150 Amperes	Each	1.00	1.40	1.33
175 Amperes	Each	1.00	1.40	1.33
200 Amperes	Each	1.00	1.40	1.33
225 Amperes	Each	1.80	2.52	2.40
250 Amperes	Each	1.80	2.52	2.40
300 Amperes	Each	1.80	2.52	2.40
350 Amperes	Each	1.80	2.52	2.40
400 Amperes	Each	1.80	2.52	2.40
450 Amperes	Each	2.75	3.85	3.67
500 Amperes	Each	2.75	3.85	3.67
600 Amperes	Each	2.75	3.85	3.67

600 Volts Knife Blade Contact Fuses

AMPERAGE	Unit	Wholesaler	Retailer Small	Retailer Large
70 Amperes	Each	$ .90	$1.18	$1.12
80 Amperes	Each	.90	1.18	1.12
90 Amperes	Each	.90	1.18	1.12
100 Amperes	Each	.90	1.18	1.12
110 Amperes	Each	1.75	2.45	2.33
125 Amperes	Each	1.75	2.45	2.33
150 Amperes	Each	1.75	2.45	2.33
175 Amperes	Each	1.75	2.45	2.33
200 Amperes	Each	1.75	2.45	2.33
225 Amperes	Each	3.50	4.90	4.65
250 Amperes	Each	3.50	4.90	4.65
300 Amperes	Each	3.50	4.90	4.65
350 Amperes	Each	3.50	4.90	4.65
400 Amperes	Each	3.50	4.90	4.65
450 Amperes	Each	5.00	7.00	6.65
500 Amperes	Each	5.00	7.00	6.65
600 Amperes	Each	5.00	7.00	6.65

All Fuses F.O.B. Location

PRIORITY BUYERS—VETERANS—COMMERCIAL BUYERS—EXPORTERS

GOVERNMENT OWNED SURPLUS

FIXED PRICE SALE AT LESS THAN MANUFACTURER'S PRICES!

FERRULE AND KNIFE BLADE CONTACT TYPES

Fifty-eight different types of these protective electrical devices are included in this surplus property offering. Made by various manufacturers, these fuses operate in the conventional manner and provide protection from short circuits and heavy overloads for many types of wiring equipment. They require no attention, occupy a small space, can be easily recharged when blown and instantly replaced. All are in unused condition.

All regions have some inventory, but not all regions have all sizes and types listed: check your nearest Regional Office for more complete information.

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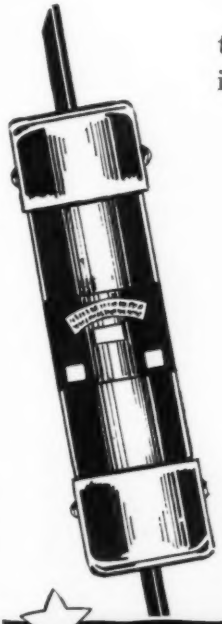

This is a concurrent and continuous sale. Ten percent of the total inventory will be reserved to fill orders received from Federal Agencies by 5 p.m. on March 25, 1947. All other orders received by 5 p.m. on this date will be filled in the following sequence: (1) Certified Veterans of World War II; (2) Subsequent priority claimants; (3) Non-priority purchasers.

ALL ORDERS received after this date will be filled without regard to priorities.

PAYMENTS must be made when requested, unless credit has been established in advance at WAA Regional Offices. Business checks or approved personal checks will be accepted.

PURCHASER'S ORDER must state thereon: "This order is subject to War Assets Administration standard conditions of sale and all other advertised terms and conditions and no other terms or conditions shall be binding on War Assets Administration."

EXPORTERS: Your business is solicited. Any inquiries regarding export control should be referred to Office of International Trade, Department of Commerce, Washington 25, D. C.

OFFICE OF GENERAL DISPOSAL

WAR ASSETS ADMINISTRATION

GOVERNMENT WAA SURPLUS

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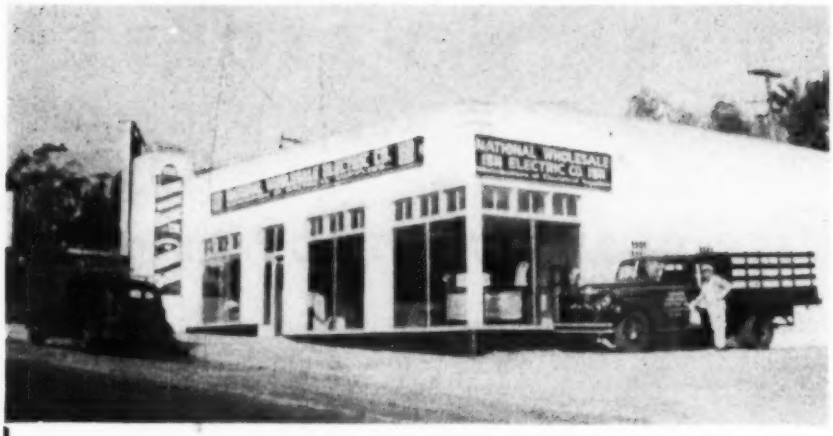
Electrical Wholesaling's CAMERA CLICKS

at Los Angeles, California



LEFT—A corner view of the new home of the National Wholesale Electric Company which also pictures the company's brand new truck.

BELOW — In the display room, enclosed on two sides by ceiling-high clear glass, A. R. Vancott points out the sales features of the company's merchandise to his employees.

BEING handicapped by building material shortages did not prevent the National Wholesale Electric Company of Los Angeles, California from continuing its plans of erecting a new building. With the completion of the building in the fall of 1946, the company now has a one-story modern, streamlined building.

The company was established in 1934 by B. R. Vancott, deceased, and is now operated by Mrs. B. R. Vancott, and A. R. Vancott, brother of the founder.

Providing a modern office, counter facilities and an up front display room for traffic appliances, the building is also equipped with four-lamp industrial type fluorescent fixtures.

RIGHT—A front window display of personnel — not merchandise — was taken by ELECTRICAL WHOLESALING's cameraman when upon moving into its new building, the company found itself shy of merchandise. Left to right, front row: M. Kenter, counter salesman; Mrs. B. R. Vancott, partner; A. R. Vancott, partner. Back row: Paul Cates, driver; Phillip Roth, bookkeeper; Roy Jacobs, purchasing agent.

News Notes From N.E.W.A.

By Alfred Byers, *Secretary*
National Electrical Wholesalers Association

PYLE TO ADDRESS RICHMOND MEETING ON FARM ELECTRIFICATION

Charles G. Pyle, N.E.W.A.'s managing director, will address the Virginia Farm Electrification Council on March 25th at the John Marshall Hotel, Richmond, Virginia. "RURAL ELECTRIFICATION—A CHALLENGE AND AN OPPORTUNITY FOR THE WHOLESALER," will be the subject of his address. Mr. Pyle in recent months has made several addresses to large gatherings on the subject of farm electrification with particular reference to the electrical wholesaler's place in this program. The subject is one with which Mr. Pyle, by industry as well as personal experience, is very familiar.

His Richmond address will bring forcefully to the attention of his listeners the great potential electrical market to be found in the American Farm, and concrete suggestions on how to approach it. N.E.W.A. has been interesting itself on behalf of the electrical wholesaling industry in this vital subject. Considerable information has been distributed to its large membership with the view to keeping them informed regarding these marketing possibilities. Mr. Pyle regards the farm market as a 20 to 25 percent market for electrical goods, and has on a number of occasions declared that the electrical wholesaler is the key-man in turning the potentials of that market into product sales.

N.E.W.A. ATLANTIC CITY CONVENTION

The Program Committee Chairman, D. M. Salsbury, reports excellent progress in setting up the program for the 38th Annual Convention of N.E.W.A. to be held at Atlantic City, May 4-8, 1947. Acceptances have already been received from several outstanding speakers within the electrical industry. Arrangements also have been completed for the presentation of several unusual convention features which will be of particular interest to the industry. They will be of a unique and unusually inspiring character. Advance registration is large and the Program Committee has laid its plans on the basis that the forthcoming Convention will be one which will exceed in size, and general participation even the record making convention held at Chicago last April.

PYLE AND HILL ON FIELD TOUR

A considerable time, during last month and this, has been spent by Mr. Pyle and also Mr. Hill, director of the Appliance Division, in conducting local meetings and calling upon members in the Atlantic seaboard states. The itineraries of both have covered this area thoroughly. The local meetings in the many cities en route have been well attended by N.E.W.A. members and have been reported as enthusiastic gatherings, out of which considerable information has resulted to the benefit of the members attending. The meetings have been the means of bringing all of the members in the various areas currently up to date in the many activities of the Association and its numerous committees.

N.E.W.A. COMMITTEE MEETINGS

Ever since the beginning of the year there has been a constant activity on the part of the Association's committees. The need for increased committee work of course was brought about by the quickly changing conditions that have existed since the end of the recent war. These committee meetings have been held during this period for the particular purpose of enabling the committees to consider the most current problems in their respective commodity fields in advance of the opening of the Atlantic City convention. At that time these committees will discuss their activities, and the membership at large will have an opportunity to consider further the problems which may still be in the forefront at that time.

Committees which already have met to review the problems in preparation for the coming convention have been:

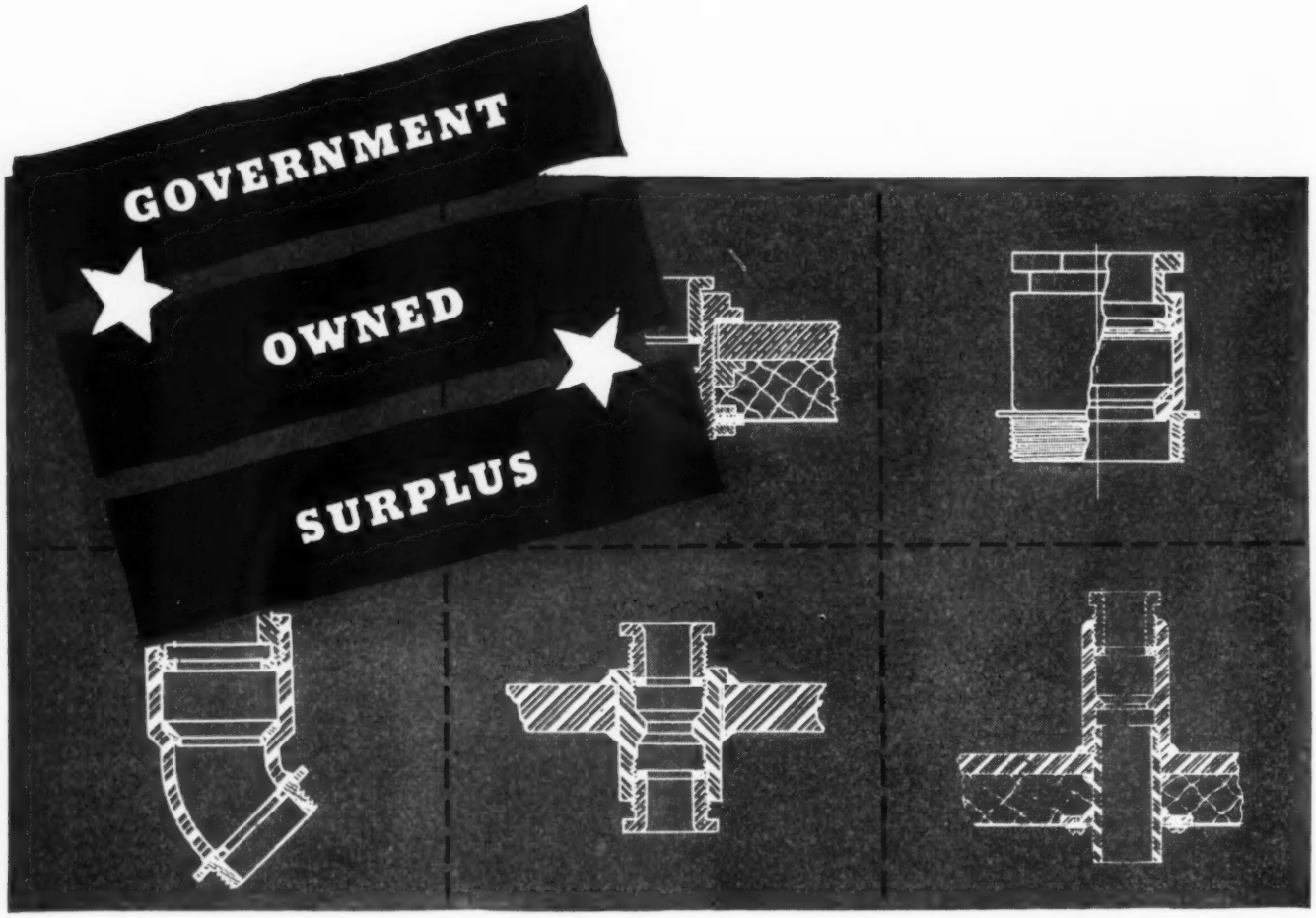
Outside Construction Materials Committee, Wiring Devices Committee, Industrial Electronics Committee, Industrial & Commercial Lighting Committee, Residential Lighting Fixtures Committee, Apparatus & Control Committee—all in the Apparatus and Supply Division of the Association.

Committees from the Appliance Division which already have met in advance of the convention are:

Sales Promotion and Sales Training Committee, Store Management & Store Arrangement Committee, Major Appliance Committee, Small Appliance Committee, and the Legislative Committee.

These meetings were well attended and developed a considerable amount of information which is being reported to the general membership by the publication of reports and special releases following the meetings.

Committees which are still to meet prior to the convention's opening at Atlantic City are the Radio, Television and Tubes Committee, the Warehousing Com-



NAVY TYPE TERMINAL AND STUFFING TUBES

SEALED BID SALE

If you use or sell fittings to take electric cable through walls, ceilings, floors, decks, bulk-heads, housings, tanks, etc., here are items you can use. The component parts are made of Brass, Steel, Bronze or Aluminum and may be adapted to the production of a variety of industrial equipment. Best quality (used for battleships and submarines during the war) and at a price *you* set yourself. $1,200,000 worth of these fittings will be placed on sealed bid sale in March. Make sure you have an opportunity to bid. Write today to each of the WAA offices listed below and ask to have bid offering lists mailed to you. Each of the listed offices will be conducting its own sales. You have 12 chances of being low bidder.

List of WAA offices conducting sales of Navy Type Terminal and Stuffing Tubes during March:

Atlanta • Birmingham • Boston • Los Angeles • Minneapolis • New York Portland • Richmond • Philadelphia • San Francisco • Spokane • St. Louis

NO PRIORITIES NEEDED

OFFICE OF GENERAL DISPOSAL

WAR ASSETS ADMINISTRATION

GOVERNMENT WAA SURPLUS

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mittee, both under the Appliance Division of the Association. Other committees in the Apparatus and Supply Division which will meet are the:

Fan and Ventilating Committee, Wires & Cable and Armored Conductor Committee, Conduit Fittings and Boxes Committee.

A meeting will be held shortly by one of the Association's general committees, namely the important Rural Markets Committee. This committee will meet for the first time in many months. The deliberations of the committee will develop an amount of practical and useful information which electrical wholesalers will find immensely valuable in their efforts to enlarge their operations to include the farm market.

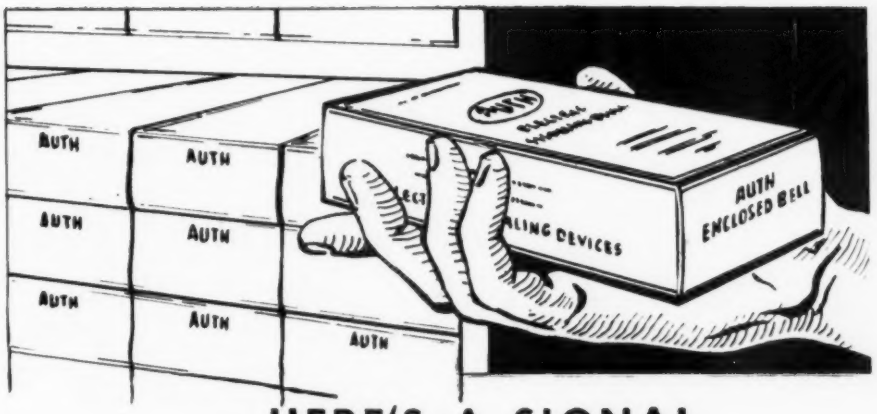
The N.E.W.A. convention at Atlantic City in May will be a highly realistic one from an industry standpoint. Contributing largely to that fact is the work which has been done so intensively by Association committees in advance of that event. There is a noticeable increase in committee activities and this is being reflected in the pre-convention meetings of these committees and will be further in evidence throughout the convention proceedings.

MAKE YOUR RESERVATIONS NOW

for the 38th Annual N.E.W.A. CONVENTION, Hotel Traymore, Atlantic City, May 4th to 8th.

Address reservations to Mr. Charles G. Pyle, Managing Director, National Electrical Wholesalers Ass'n, 500 Fifth Ave., New York 18, N. Y.

Don't forget to make your hotel and transportation reservations as early as possible for this event.



HERE'S A SIGNAL THAT *Sells*—IT'S AN AUTH

A bell, buzzer, push button or other device in the distinctive orange and blue Auth box is a signal you can really sell. Here's why:

Contractors and industrial users like Auth signaling devices. That's a result of Auth's sustained quality since 1892.

Auth devices are easy to install and wire.

Auth devices are guaranteed. Before you get them, they are carefully tested to make sure they are right. You'll have no troublesome complaints about Auth devices.

Auth devices are up to date and attractive, both in appearance and tone. That means *extra* satisfaction for the user.

Auth's quick "short-order" service helps you keep control of your stock quantities.

THAT'S WHAT MAKES MONEY FOR YOU

There's no dust collecting on Auth signaling devices. The profit margin is good, and you won't lose on complaints.

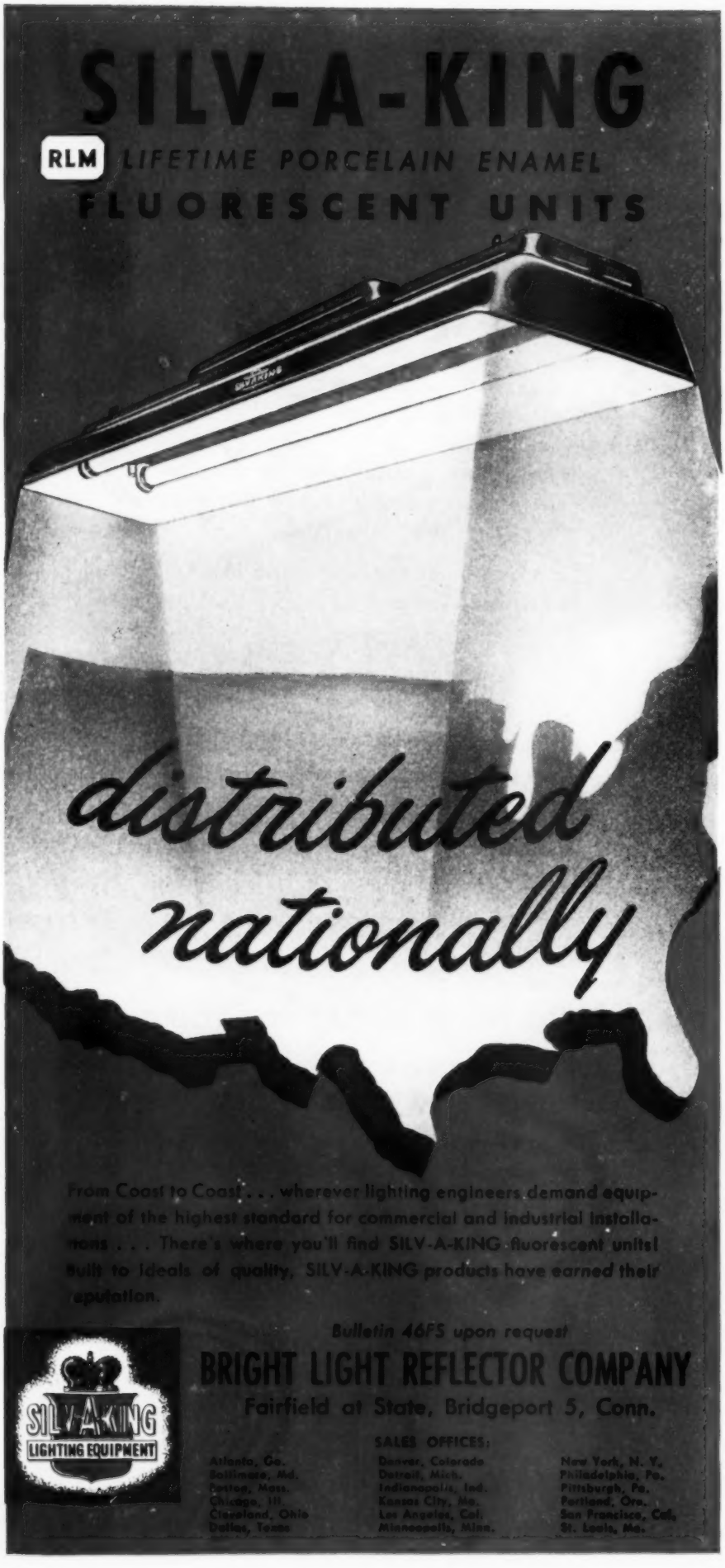
Auth's line of standard, fast-moving signaling devices is complete—make your stocks complete with Auth.

The Auth line also includes signaling and telephone systems for apartments, schools, hospitals, industrial plants, offices and commercial buildings. Refer to the reliable, complete Auth Catalog first.

AUTH IS SOLD ONLY THROUGH THE WHOLESALER

1-L

AUTH ELECTRIC COMPANY, INC.
34-20 45th STREET LONG ISLAND CITY 1, N. Y.
Offices in AUTH Principal Cities
SINCE 1892


SILV-A-KING
RLM LIFETIME PORCELAIN ENAMEL
FLUORESCENT UNITS
distributed nationally
From Coast to Coast . . . wherever lighting engineers demand equipment of the highest standard for commercial and industrial installations . . . There's where you'll find SILV-A-KING fluorescent units! Built to ideals of quality, SILV-A-KING products have earned their reputation.
Bulletin 46FS upon request
BRIGHT LIGHT REFLECTOR COMPANY
Fairfield at State, Bridgeport 5, Conn.
SILV-A-KING LIGHTING EQUIPMENT
SALES OFFICES:
Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Chicago, Ill.
Cleveland, Ohio
Dallas, Texas
Denver, Colorado
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.
Minneapolis, Minn.
New York, N. Y.
Philadelphia, Pa.
Pittsburgh, Pa.
Portland, Ore.
San Francisco, Cal.
St. Louis, Mo.

NEWS

(*Continued from page 67*)

elry and silverware, luggage, men's sport shirts and toys and games.

Other items formerly listed in Direction 1 now become subject to the practicable minimum working inventory restrictions of PR-32. These include such things as electric mangles, electric water heaters, mechanical refrigerators, ranges, sewing machines, vacuum cleaners and washing machines.

CPA officials said this action was taken now because many of the "controlled merchants" (those whose business was large enough to make them subject to L-219) ended their fiscal year on January 31. Action at this time will free them from the necessity of a good deal of accounting and other paper work.

CPA stressed, however, that lifting of the order does not mean that all merchandise is plentiful. Many essential items are still in limited supply, CPA said, pointing out that the recent action was taken with the concurrence of the Wholesale and Retail Soft Lines Industry Advisory Committee.

Order L-63 was not affected by the revocation. This order provides inventory control on merchants selling "hard lines" such as automotive, building and hardware supplies.

L-219 was issued on December 22, 1942, to distribute the then diminishing supply of consumer goods as fairly as possible. It applied to retail merchants whose yearly inventories amounted to $50,000, or whose annual sales were $200,000.

GRAYBAR Electric Co. has renewed its franchise with the Proctor Electric Co. for 1947. Ernest Meserve, district merchandising manager, Graybar, New York, is shown accepting the franchise from Paul Coolidge, Proctor New York district manager, while Carl McLaughlin, left, Proctor New Jersey representative, and Herman Berg, merchandising manager of Graybar, Newark, look on appovingly.

Silver Anniversary For Philadelphia Wholesaler

PHILADELPHIA—A quarter of a century of distributing electrical supplies and equipment was recently celebrated by the Colonial Electric Company of 240 North Tenth Street, Philadelphia.

Colonial Electric was founded by Edward J. Coyle, Martin T. Nice and Earl A. Wilson on January 2, 1922. Mr. Nice

Mr. Nice and Mr. Wilson—Twenty-five years for Colonial Electric Company.

and Mr. Wilson are the active officials of the company which has enjoyed twenty-five years as one of the outstanding independent electrical supply organizations in the Philadelphia area.

An anniversary banquet in honor of the founders and employees was attended by the company's officials, employees and their families on January 17, 1947. Bert Williams, sales manager, acted as toastmaster. The highlight of the evening was the presentation of gold wrist watches to the employees with the longest service. United States Savings Bonds and gifts were awarded to the other employees.

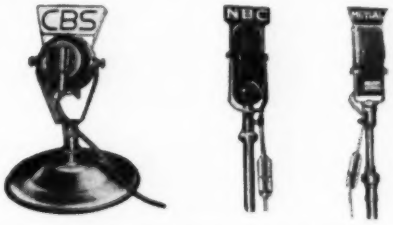
New Procedure To Free Electronic Surpluses

WASHINGTON—Manufacturer-agents were assured early and large volume releases of electronic surpluses during a recent conference of officials of the War Assets Administration and RMA representatives.

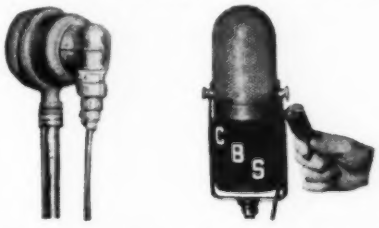
Disclosing new administrative procedure designed to cut red tape, Deputy Administrator John H. Carey and other WAA officials stated that early in February there should be substantial releases of surplus electronics, both components and equipment, to manufacturer-agents

Dependable MICROPHONE PLUGS by CANNON ELECTRIC

Judy Canova, radio star, broadcasting over NBC in Hollywood, with Hal Gerard and Joe Kearns. RCA microphone is equipped with Types "O" or "P". ALL RADIO NETWORKS USE CANNON MICROPHONE PLUGS.

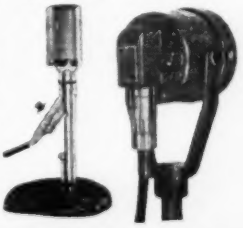


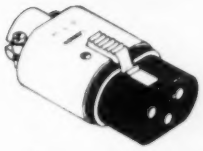
Left: Type "O3-42" Receptacle and "O3-11" Plug on Western Electric table type mike used by Columbia Broadcasting Co. *Center and Right:* Other large network mikes use type "O" for cable extension. The latchlock device prevents accidental disconnection resulting from jerks or strain on cord.



Left: Microphone with "P-42" Receptacle and P-CG-11 Plug used for platform public address. (Photo courtesy Reiss P. A. Systems, Detroit). *Right:* Mike used by CBS-Hollywood, with P-CG-12 plug shown in hand. As in the case of the above Type "O", two mating "P" plugs can be used conveniently for cable extension where receptacle is not an integral part of the microphone itself.

The New lightweight Type "XL" is standard equipment on the equally new RCA "Announce" Microphone which has a unique construction in the stem, allowing the plug to swing into the stem with a cover. Relief spring on XL-3-11 plug protects cord from sharp bends. Adapters are available to users of microphones such as the Turner (second to right) for those desiring to convert to Cannon "XL" Plugs.





TYPE "O"

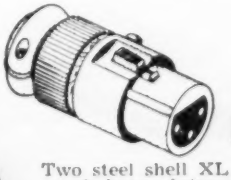
Two plugs and six receptacle styles available in this series. One oval insert arrangement with three 30-amp. contacts for No. 10 B&S stranded wire.

TYPE "P"

Five plugs and nine standard receptacle styles available in six insert arrangements; two to six 30-amp. contacts, one eight 15-amps. for No. 14 B&S stranded wire.

TYPE "XL"

Two small plugs and four receptacles with zinc shells carry three 15-amp. contacts for No. 14 B&S stranded wire. Equipped with compression gland and relief spring.



TYPE "XL"

Two steel shell XL plugs for rough, heavy-duty usage. Same insert arrangement as above. Integral clamp construction and leading XL features.

Write Dept. C-362 for C-46A Condensed Catalog, describing all above connectors and list prices. Available from jobbers everywhere.

CANNON ELECTRIC

CANNON ELECTRIC DEVELOPMENT COMPANY

3209 Humboldt Street, Los Angeles 31, California

Canada & British Empire—Cannon Electric Co., Ltd., Toronto, Ontario • World Export Agents (excepting British Empire) Frazar & Hansen, 301 Clay St., San Francisco 11, Calif.

BURGESS
Portable Radio
BATTERIES
are profitable!

Stock Your Dealers *Now* For This Summer Business

Summertime's the busy time for portable radios! And this year the battery replacement business will be bigger than ever. So make sure your dealers are ready with the complete, fast-selling Burgess line!

Investigate the Burgess Line Today!

The *complete* Burgess line means extra profits... means you can supply your customers with *all* their battery needs for the big radio, hearing aid and flashlight markets. Enables you to serve the growing industrial market for dry batteries. And Burgess helps your dealers' sales with smart merchandising helps... with a big pre-selling campaign to over 20 million readers every month in *Saturday Evening Post, Collier's, Liberty* and other leading magazines.

FIND OUT HOW TO BE AN AUTHORIZED BURGESS DISTRIBUTOR
(Use Coupon Below.)

BURGESS BATTERIES

Burgess Battery Company, Dept. 36, Freeport, Illinois

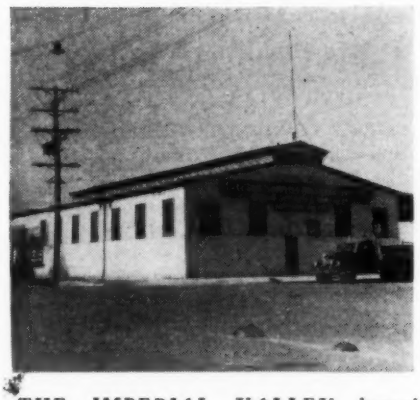
Gentlemen:

We want more information on the *complete* line and how we can be a Burgess distributor.

NAME _____

ADDRESS _____

CITY _____ *ZONE* _____ *STATE* _____



***THE IMPERIAL VALLEY** branch office and warehouse of the Electric Supplies Distributing Co., San Diego, recently have been reopened after having been closed during the war. Milton C. Taylor is manager, assisted by Orval Faringer, counter salesman, Robert L. Vaught, warehouse man and Gwen Clements, office assistant.*

and that by March there should be large quantities increasingly available.

Deputy Administrator Carey, Col. George H. Moriarity, now in charge of both WAA Aircraft and Electronics, and his successor, H. C. Thomas, new chief of the Electronics Division, participated in the conference with Chairman M. F. Balcom of the RMA Surplus Disposal Committee and Bond Geddes, RMA executive vice president.

New administrative procedure, which has already been instituted at the Philadelphia warehouses, provides for calling in manufacturer-agents to select surplus directly. Warehouse release, for shipments within ten days, also is being arranged under the new administrative arrangements to reduce records and paper work which have heretofore hampered electronic disposal.

The warehouse selection program by agents will be adopted soon at Camp Holabird, Baltimore; Akron, Ohio, and Decatur, Ill. Agents will similarly be authorized to select surplus from the inventories of manufacturers whose WAA agency contracts have been cancelled.

Both WAA and Signal Corps, according to Deputy Administrator Carey, have given priority schedules to release electronic surpluses. Scrapping also is being expedited.

Resistance Welder Makers Announce New Officer

DETROIT—George N. Sieger, president of S-M-S Corporation, Detroit, Mich., was elected president of the Resistance Welder Manufacturers Association at the recent annual meeting of the

organization in the Book Cadillac Hotel, Detroit.

A prominent figure in the welding industry, Mr. Sieger has, for a number of years been active on committees of the American Welding Society and now serves as second vice president of that organization.

T. S. Long, vice president and general manager of the Taylor-Winfield Corporation, Warren, Ohio, was elected to serve as the association's vice president.

Mr. Long has been extremely active in the work of the association for several years, serving during 1946 as chairman of the arbitration committee.

West Coast Wholesalers Exhibit Merchandise

SAN FRANCISCO — Pacific Coast distributors were very pleased with the results announced at the close of the 62nd Western Home Goods Market recently held at the Western Merchandise Mart, San Francisco.

In buyer registrations, volume of business placed and availability of properly priced quality merchandise, the Market exceeded all expectations and set a new high level of performance.

According to the registration list over 6,000 buyers and dealers attended the Market from all parts of Western America, Canada, Alaska, Latin America, the

PLANS for promoting commercial and industrial store lighting equipment sales were discussed at this recent meeting of Lighting Products Co., Highland Park, Ill. Seated, left to right: Bill Janness, designer; M. M. Dunbar, vice pres.; J. W. Lavan, Minneapolis; L. C. Koh, Omaha; Carl Basedow, Chicago; Merrill Pearson, Duluth; Walter Huemmer, Dallas; H. O. Bourkard, Chattanooga. Among those standing are guest speakers Phil Sowersby, Bill Schlossbauer, E. . Schorr and Homer Hawson, all of the General Electric Co. Also, K. B. Lacy, president of Lighting Products Co., and Dan Dunne, general sales manager.

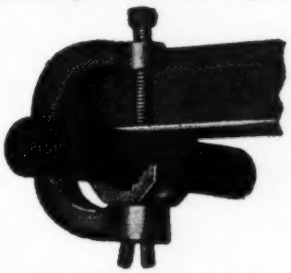
FULLMAN Latrobe PRODUCTS

FLOOR BOXES — WIRING SPECIALTIES

FULLMAN MANUFACTURING CO. QUALITY AT LATROBE SUPREMACY LATROBE, PA.

"LATROBE" PRODUCTS SELL WELL BECAUSE THEY SERVE WELL

You are on safe, sure ground when you recommend "Latrobe" Products. They are easy to install, time-saving, labor saving—and long on performance.



No. 470 "Bull Dog" Pipe or Conduit Hanger

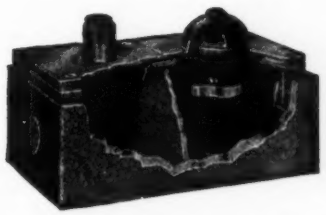
Convenient and safe for hanging ½", ¾" and 1" pipe or conduit to steel beams up to ⅜" thick. Used also as ground clamp.

No. 110 Non-adjustable Watertight Floor Box

Body is made of strong iron with 3½" brass cover plate. Shown with No. 208 Receptacle and No. 207 Bell Nozzle.

No. 280 Nozzle with No. 200 Cover Plate

Ten Amp. 250 Volt Receptacle in Brass Housing mounted on ½" brass pipe extension. 8" long. Longer pipe if desired.

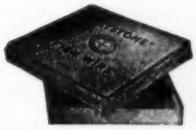


No. 252-R Two Gang Box

A popular two gang adjustable box with No. 208 Receptacle in one section. One cover plate with ½" Flush Brass Plug and the other with 2" Brass Plug.

"Bull Dog" Insulator Support

Used successfully for fastening porcelain or glass insulators to exposed steel work.



Keystone Fish Wire

Made of fine Flat Steel properly tempered. Ten sizes. Coils from 100 ft. up.

FULLMAN MANUFACTURING CO.

LATROBE . . . PENNSYLVANIA

Your customer "Gets his man" with

FARADAY KODEMASTER

MANY a customer of yours wastes precious minutes tracing the man he wants from place to place through his switchboard operator. Faraday Kodemaster would signal him *instantly*, save time and money.

Kodemaster is the ideal control for locating individuals, and includes up to 30 code signals. Unique, compact and foolproof, it may be set up with *new* or *old* signal systems in any combination of bells, buzzers, horns, Kodaires, chimes.

Markets for Faraday Kodemaster in your area are practically unlimited . . . and so are the profits you can make by recommending and installing it. Investigate today!

Faraday Unipact signal units are interchangeable, "as easy as plugging in a toaster."

At your electrical distributor's

FARADAY
ELECTRIC CORPORATION
ADRIAN, MICHIGAN

Islands of the Pacific, Australia, China and France.

Dealers and buyers jammed the fourth floor of the Mart where the electrical wholesalers had their exhibits. Considerable attention was given to the promotional and sales appeal of attractive displays, sales aids and advertising campaigns.

Crouse-Hinds Celebrates Fiftieth Anniversary

On January 18, 1897, Huntington B. Crouse and Jesse L. Hinds met in Syracuse, New York, to sign a partnership agreement to establish the Crouse-Hinds Electric Company. Because of that meeting and agreement, the Crouse-Hinds Company is celebrating its fiftieth anniversary this year.

The present officials of the company proudly point out that "Now, after fifty years, the Crouse-Hinds Company has the same objectives with which it started—to make a good product better and to deal fairly and honestly with all."

The company believes its greatest asset is the loyalty of its employees as evidenced by their long service. In a special anniversary booklet the service record of all Crouse-Hinds employees has been published. The booklet also tells the story of the company's first fifty years.

Some of the present executives of

W. E. DAVIDSON, a member of General Electric Lamp Department for ten years, has been elevated to the post of manager of the newly created Ohio Valley Sales District of G.E. Lamp Department. The new district covers the southern portion of Ohio, most of Kentucky, and a few counties in southern Indiana with headquarters in Cincinnati.

FOUR DECADES OF SERVICE—Haynes L. Everest, left, vice president, Arrow-Hart & Hegeman Electric Co., Hartford, Conn., receives congratulations from President J. R. Cook upon completing 40 years of service with that organization. His service includes six years as western manager at Chicago and many more as general sales manager at the factory.

Crouse-Hinds are men who were members of the original group. H. L. Hinds, president, joined the company in 1903 as an assistant to Huntington B. Crouse. A. F. Hills, vice president, was hired as purchasing agent in 1901. W. L. Blanding, treasurer, worked in the stockroom when he joined the company in 1903. C. M. Crofoot, commercial vice president, joined the company as a shipping clerk in 1897. Other officials include: H. B. Crouse, Jr., vice president, and J. R. Tuttle, secretary.

New Wholesale Concern Established In Calif.

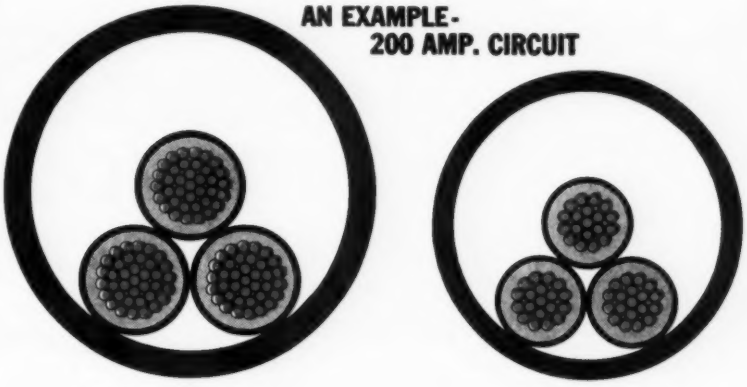
BAKERSFIELD, CALIF.—R. E. Stewart, Jr., formerly purchasing agent and sales manager for Mongerson's Electrical Machine Works, Bakersfield, Calif., together with his father, R. E. Stewart, have bought out the electrical wholesaling department of the above company and established a new electrical wholesaling concern known as the Stewart Electric Supply Co.

The company is established in a new building at 831 18th Street, near the downtown district. At the present time the company employs two outside salesmen and three salesmen inside. A full line of electrical supplies is carried, including motors and motor control equipment.

CRESCENT
ENDURITE
Type RH

Gives Greater Current Carrying Capacity per Dollar of Installed Cost

AN EXAMPLE-
200 AMP. CIRCUIT



250,000 CM
TYPE R

Requires 2½" Conduit. Maximum permissible operating temperature 60°C.

For 100 ft. run, cost of wire and conduit—approximately

$159.00

3/0
TYPE RH

Requires 2" Conduit. Maximum permissible operating temperature 75°C.

For 100 ft. run, cost of wire and conduit—approximately

$116.00

Both figures are based on 330 feet of cable and 100 feet of galvanized steel conduit at PRESENT LIST PRICES. Saving shown — 27%.

The superior heat resistant characteristics of CRESCENT ENDURITE INSULATION with its higher permissible operating temperature and therefore greater current carrying capacity, permits the use of a smaller size of conductor, and in most cases smaller size of conduit at less cost than would be required for Type R Wire for the same load.

For light loads requiring small sized conductors, Voltage Drop is the determining factor in choice of wire size. Usually in sizes No. 6 AWG and heavier for power circuits or No. 1 AWG and heavier for lighting circuits, CRESCENT ENDURITE Type RH Wire & Cable gives the lowest installed cost-per-ampere of useful circuit capacity.

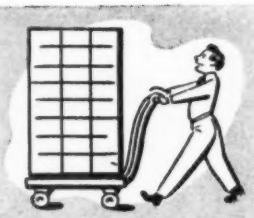
CRESCENT
Wire and Cable

NEMA

CRESCENT INSULATED WIRE & CABLE CO.

TRENTON, N. J.

Whether you sell them



or install them—

GEDNEY FITTINGS are a profitable line!

The features that make contractors call for GEDNEY Fittings are the same ones that mean extra profits for the wholesaler who stocks them. It's simple—wiring men prefer one brand of fittings to another because they believe one is superior. They know that GEDNEY fittings give them—

- ★ PRACTICAL DESIGN, COMPLETE LINE
- ★ MADE OF HIGH GRADE MALLEABLE IRON
- ★ SMOOTH, RUST-PROOF FINISH
- ★ EVERY ITEM CAREFULLY INSPECTED
- ★ EASY-TO-SPOT PACKAGING

These things mean more money to the electrician because they result in better jobs and jobs done fast! They will mean more money to the wholesaler because he stocks the fittings his customers want. GEDNEY Fittings sell because GEDNEY FITTINGS FIT!

SOLD THROUGH WHOLESALERS ONLY...
...WRITE FOR NEW CATALOG!

GEDNEY ELECTRIC CO.
FOUNDRY, FACTORY & SHIPPING POINT: TERRYVILLE, CONN.
RKO BLDG., RADIO CITY, NEW YORK 20, N.Y.

DIRECTORS of the Appleton Electric Company of Chicago recently announced the election of Arthur I. Appleton, formerly executive vice president, as president and treasurer to succeed his father, Albert I. Appleton (left), who will assume chairmanship of the board of directors. Albert I. Appleton founded the company in 1903. John A. Appleton, also a son of the founder, was elected vice president. Murray J. Whitfield has been reelected vice president in charge of sales, and H. M. Schlobaum was elected secretary.

RMA Banquet Revived, Promotion Drive Outlined

WASHINGTON—At a recent meeting in the Hotel Stevens, Chicago, the Board of Directors of the Radio Manufacturers Association voted unanimously to revive the prewar practice of holding an industry banquet during the RMA annual convention. The next convention will be held at the Hotel Stevens June 10-13 this year.

During the meeting the directors heard reports on the promotion of the "Radio-in-Every-Room" campaign and the 1947 observance of National Radio Week.

Prior to the Chicago meeting representatives of the National Association of Broadcasters sales managers committee and the RMA advertising committee met jointly in Washington and discussed plans for coordination of activities in the "Radio-in-Every-Room" campaign to be launched early this spring.

Sylvania To Produce Marine Radar Systems

NEW YORK—Company plans for the production, distribution and servicing of commercial marine radar systems were recently announced by Don G. Mitchell, president of Sylvania Electric Products, Inc., at a luncheon following a private inspection of the new radar installation on the Queen Elizabeth. The radar equipment was explained and demonstrated by Sir Robert Watson-Watt, father of British radar and consultant for Sylvania Electric Products, Inc., and A. C. Cossor, Ltd., Sylvania affiliate and producer of the Queen Elizabeth radar.

In making the announcement, Mr.

Mitchell said, "The entrance into the commercial radar field is a logical expansion of the company's activities since it is the largest producer of certain critical radar components and is developing and building complete equipments for government contracts."

Sylvania became affiliated with the A. C. Cossor group of companies, the largest producers of radar equipment in Great Britain, about a year ago.

Mr. Mitchell pointed out that the two companies have been cooperating in improving, producing and distributing the commercial radar equipment pioneered by Cossor and now in use on the Queen Elizabeth and several other vessels.

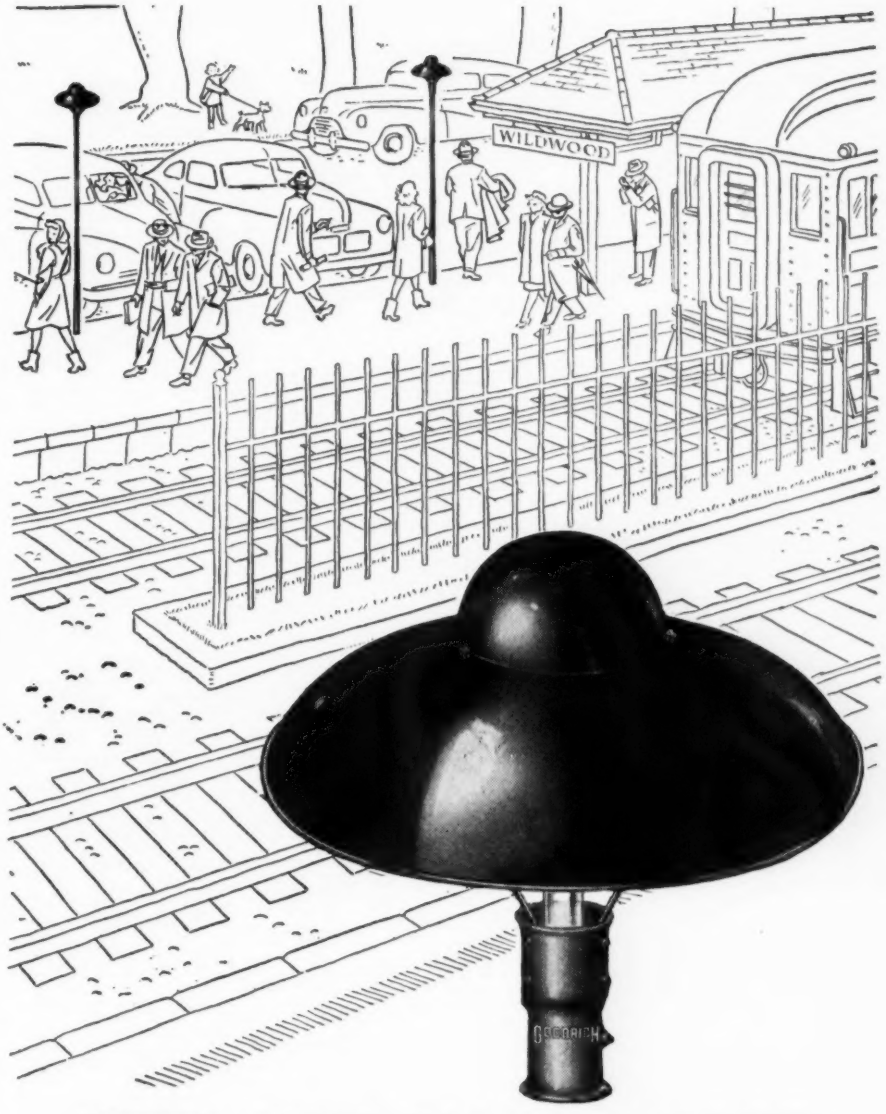
GESCO San Diego Branch Announces Changes

SAN DIEGO—G. A. Yoshonis, major appliance salesman, has been assigned to covering the city territory for the General Electric Supply Corporation, San Diego, Calif. Mr. Yoshonis was formerly service manager and has been associated with General Electric for the past seven years. Prior to that, he was with the Graybar Electric Co. in Detroit.

E. B. Peterson, who has been with the company ten years—eight of them in the Los Angeles office—has been named service manager.

Three inside positions recently filled by war veterans included: William Vahle, counter salesman; Lin Christienson, counter salesman, and J. M. Lambert, order editor.

ELECTRIC SUPPLIES Distributing Co., San Diego, depends on Miss Mary Heidmiller for quick, accurate information regarding its lamp stocks. Everything relating to lamp stocks, such as perpetual inventories, monthly reports, and allocations of scarce types of lamps on back orders, is handled at her desk.

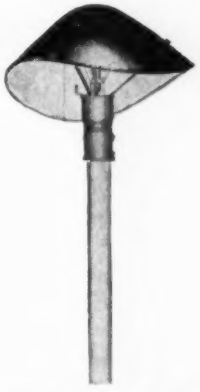


BETTER LIGHT FOR BUSY PLACES

the Goodrich Standlite—Railroads find the Standlite ideal for use on station platforms, bridges, footwalks, around switching zones, sidings, etc. And hundreds of industrial users find that it answers their needs—exactly.

There are good reasons for the popularity of the Goodrich Standlite. It is porcelain enameled, entirely weatherproof. It combines high efficiency with modern, distinctive appearance. It brings light closer to the ground, diffuses it over a wide area, minimizes glare. Low mounting height makes for easy installation, easier servicing. And it's built to last!

If modern high intensity illumination can add to safety or service in your busy locations, get the facts about the Goodrich Standlite.



The Elipso Angle Standlite directs light forward and laterally in a long, narrow pattern.

RLM

Sold Through Electrical Wholesalers

GOODRICH
ELECTRIC COMPANY
4600 BELLE PLAINE AVENUE, CHICAGO 41, ILLINOIS

YES—
BRONCO 60
has DU PONT
NEOPRENE
JACKET

Here's wire and cable that will provide even longer life—Bronco 60 with du Pont Neoprene Jacket. Neoprene is vulcanized onto Bronco 60 wire and cable by our own exclusive process. That means it is flame resisting; impervious to acid, alkali, moisture and oil, and highly resistant to sunlight cracking, crushing, wear and tear.

Always Specify BRONCO

Send for new, Complete Catalog

WESTERN
INSULATED WIRE CO.
1001 East Sixty-Second St.
Los Angeles 1, California

Prize Winners Announced In Radio Letter Contest

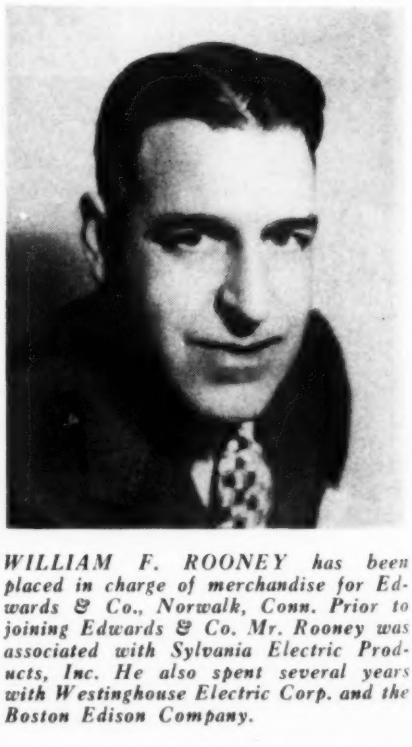
WASHINGTON—Winners in the nation-wide letter-writing contest conducted during National Radio Week, Nov. 24-30, on the topic, "What I Think About Radio," have been selected by a committee of distinguished judges after a careful screening of all letters submitted to nearly 200 participating broadcasting stations. The Radio Manufacturers Association and the Association of Women Broadcasters of the National Association of Broadcasters, joint sponsors of the contest, made the announcement recently.

The contest winners will be awarded table model radio receivers, donated by manufacturer-members of RMA, at local ceremonies to be held by the stations whose letters were selected from among the thousands received.

The sponsors said that bouquets and brickbats were showered liberally on radio by the letter writers, but the judges were impartial in their selection of prize-winning letters, regardless of whether they were laudatory or critical of radio programs and practices.

The letters came from every state and were chiefly from women as the contest was conducted by the NAB's Association of Women Broadcasters. A few men, however, were scattered among the listeners who submitted letters in the contest. Letter writers ranged in age from a boy 7 to a woman of 102.

Opinions on "What I Think of Radio"



WILLIAM F. ROONEY has been placed in charge of merchandise for Edwards & Co., Norwalk, Conn. Prior to joining Edwards & Co. Mr. Rooney was associated with Sylvania Electric Products, Inc. He also spent several years with Westinghouse Electric Corp. and the Boston Edison Company.

WHOLESALER employs lighting specialist—The Sacks Electrical Supply Co., Akron, Ohio, recently engaged the services of Keith Nesbitt, who will be in charge of enlarging the company's contractor-dealer cooperative lighting activity. Mr. Nesbitt has been associated with Westinghouse Electric Corp., Sylvania Electric Products, Inc., and the Ohio Edison Company.

varied, as might be expected, but most letters stressed the variety of entertainment provided by radio at no cost to the listeners. Letter-writers also cited news broadcasts, market and weather reports, and religious programs as being of especial value.

While critical letters were in the minority, they expressed a dislike for certain types of radio commercials, serial dramas, and the more blood-thirsty mystery programs. A number of letters urged more and better programs for children and youthful listeners, as a counter-offensive to juvenile delinqnency, while others suggested a need for better religious programs.

GE Sales Executives Appointed To New Posts

BRIDGEPORT, CONN.—William H. Dennler, assistant to the general sales manager of General Electric's Appliance & Merchandise Department, has been appointed assistant Pacific district manager of appliance sales, it was announced recently.

Harold H. Mount, formerly accountant for the G-E heating device, fan and vacuum cleaner divisions, has succeeded Mr. Dennler as assistant to the general sales manager.

Mr. Dennler, who will make his head-

INTRODUCING A REAL PROFIT-STAR FOR COMPETITIVE SELLING

THE NEW POPULAR-PRICED *FASCO VENTILATOR

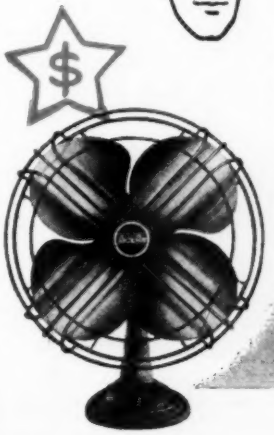
OFFERING NEW APPEALS FOR VOLUME SALES

"I LIKE the new FASCO ventilator . . . it removes odors and air-laden grease and dust so quickly, quietly and without drafts. The modern, white-enameled grille adds beauty to any wall . . . is so easy and simple to remove and clean. Just one control operates both outside door and fan, too."

"I LIKE the new FASCO ventilator . . . it's a high quality, efficient vent, but it's reasonably priced. Low operating cost and no maintenance, except for an occasional cleaning. No fire hazard from clogged-up ducts. Positive, weather-tight seal protects my walls."

DEALERS LIKE the new FASCO ventilator because it's amazingly simple, easy and quick to install or service. Long, trouble-free life satisfies customers. Popular price brings volume sales for multiple installation . . . kitchens, bathrooms, playrooms, nurseries, etc.

For full details see your FASCO representative or write direct



* MADE BY SPECIALISTS IN AIR CIRCULATION—MAKERS OF THE FAMOUS ARCTICAIRE FANS

F. A. SMITH MANUFACTURING CO., INC.

ROCHESTER 2, NEW YORK

EXTRA PROFITS

with attic and window

fan controls

by

Paragon

- **Two time ranges . . . 0 to 10 hours; 0 to 20 hrs.**
- **Telechron motored . . . quiet; no ticking, self-starting; synchronous.**
- **Underwriter's approved for 115 V. A.C., ¾ H.P. loads . . . accurate and dependable.**
- **Easy to install, direct to handy box or surface mount with conduit connection through bottom of timer.**

For extra profits this spring and summer, get set to install these new timers, now. They work with any A.C. fan, and the setting may be changed at will without harming the instrument. Timer motor runs only when timer is in operation.

List price only $9.75 F.O.B. Two Rivers . . . an outstanding value. Order from your jobber now . . . and ask for Sales Aids.

PARAGON ELECTRIC COMPANY
1630 Twelfth Street
TWO RIVERS, WISCONSIN

"Mr. Tops" the Paragon symbol of top quality.

Paragon Two Rivers WISCONSIN
BUILDERS OF ELECTRICAL EQUIPMENT SINCE 1905

MODERN functional design keynotes the building recently opened in Portland, Oregon, by Electrical Distributing, Inc., distributor in that area for Apex Electrical Manufacturing Company. Front of the building provides a wide expanse for displays.

---

quarters in San Francisco, joined the General Electric in 1933 as a member of the company's business training course in Schenectady, N. Y. In 1942 he was named supervisor of personnel placement, and two years later he became assistant to the general sales manager.

Mr. Mount attended the business training course given by General Electric and in 1936 became a traveling auditor working out of Schenectady. Three years later he was transferred to the company's Ontario, Calif., factory as works accountant. In 1945 he was named accountant of the heating device, fan and cleaner divisions in Bridgeport.

Radio Tube Production Reaches New High Record

WASHINGTON—More radio receiving tubes were produced in the United States in 1946 than in any other year in the industry's history according to a recent announcement by the Radio Manufacturers Association.

The association reported that total shipments by RMA member-companies were 205,217,174 for 1946 and 24,473,535 in December. The highest annual production before the war was 135,838,157 in 1941, while the highest output during the war was 139,478,321 in 1944.

St. Louis Television Station Starts Programs

ST. LOUIS—Television service was recently introduced in this city by the joint efforts of the RCA Victor Division of the Radio Corporation of America, the Interstate Supply Company, local RCA Victor distributors and Station

KSD-TV, operated by the St. Louis Post-Dispatch.

In order to launch the ambitious first week's schedule of 21 hours of varied programs, KSD-TV station officials flew much of the critical equipment from RCA Victor plant at Camden, N. J., to St. Louis by private plane. Skilled veteran television showmen were recruited from Chicago to aid the station in setting up its program.

Michigan Wholesaling House In New Quarters

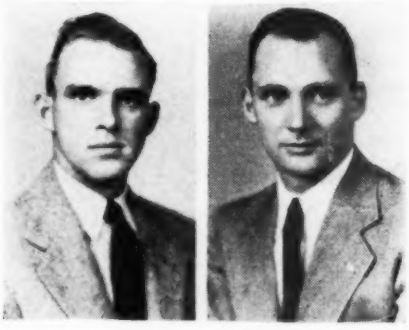
LANSING, MICH.—General Electric Supply Corporation of this city recently moved to new and larger quarters at 428 N. Grand Avenue.

During the war, the company maintained an office in Lansing but shipped everything from its main warehouse in Detroit. The Lansing office now has its own warehouse and conducts a complete business from its facilities in Lansing.

The new location provides a space 72 feet by 226 feet on the ground floor plus a second story in the rear of the building 72 feet by 60 feet. A New York Central Railroad siding allows carload shipments from manufacturers to be delivered to the back door of the warehouse.

Cutler-Hammer Announce New Executive Changes

MILWAUKEE — Cutler - Hammer, Inc., of this city recently announced the following changes in its organizational group. J. C. Springer has been elected treasurer. Mr. Springer, who is also assistant secretary, was formerly mana-



VETERANS recently added to Sylvania Electric Lighting Products Division include G. H. Mackenzie (left) and W. H. Childs, Jr. Mr. Mackenzie, an Army veteran, will supervise the wiring device section of the sales service dept. Mr. Childs, who served in the Navy, will be in charge of lamp sales service.

Top quality is *Best* at any price

Pay more . . pay less . . but you just can't beat them. They're the best!

651-F
FLEX-LOC LAMP HOLDER
Listed and Approved by Underwriters' Lab., Inc., and Canadian Standards Association
Appliance Division
E.T.L. Test Report 314454
Available
Patented—Other patents pending

FLEX-LOC by Lloyd, is THE outstanding achievement in lamp holders . . no other can match its performance! Briefly, the name "Flex-Loc" tells the story. Flexible . . it automatically self-adjusts to variations in length of lamps, or the spacing of mounting holes . . then "click", it locks the lamp securely . . positively! Ingeniously engineered! So simple. So foolproof. So easy to use. Flex-Loc is a MUST in the specifications of many lamp manufacturers.

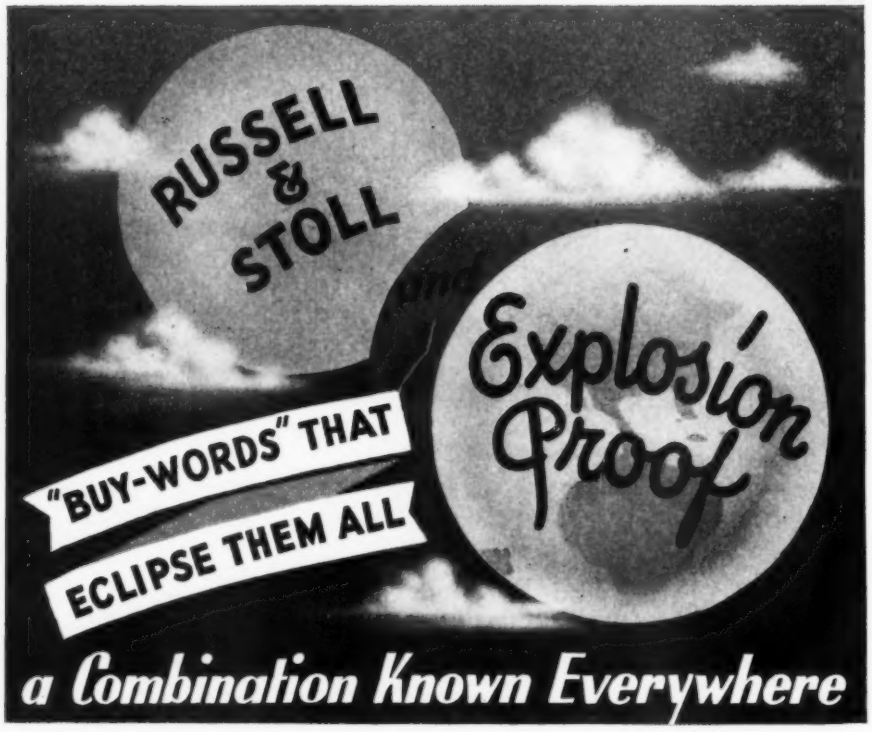
FS-40
AUTOMATIC STARTER
Listed and Approved by Underwriters' Lab., Inc.
Certified by E.T.L. Spec. 6
Pat. Nos. 2200443-2228210

HERE'S ANOTHER BEST

A marvel of modern science. Lloyd's Automatic Starters play a BIG part in lighting the lamps of industry. There are millions in use throughout the country! Engineered for quick, sure starting of fluorescent lamps and built to specifications far more rigid than accepted standards . . here is the automatic starter that can't be beat! Results? Saves maintenance costs and power consumption. Protects and insures longer life to ballast and lamp. Eliminates the annoyance of flickering and blinking.

LLOYD POLICY INSURES QUALITY

LLOYD PRODUCTS COMPANY
Providence 5, R. I.
Branch Offices and Warehouse Stocks in 27 Leading Cities



EXPLOSION-PROOF FIXTURES AND FITTINGS

4201 BC

4462

4507

Say "RUSSELL & STOLL" and you think of "EXPLOSION-PROOF"...a combination known throughout the industry. Sell RUSSELL & STOLL Explosion-Proof Fixtures and Fittings and you sell customer confidence because of their high standard quality and long life of dependable service.

RUSSELL & STOLL Fixtures and Fittings, for all outdoor and hazardous areas, are precision-built to withstand the toughest service conditions . . . whether meeting the abuse of extreme climatic conditions, vapors, dust, or explosive gases.

The well-known RUSSELL & STOLL EVER-LOK wiring devices prevent accidental interruption for the life of the job. All units afford a high degree of interchangeability, and are designed for easy installation and wiring.

A descriptive and illustrated broadside No. 101-5 gives pertinent information. Write for your copy.

Sold Through Electrical Wholesalers

SALES OFFICES IN PRINCIPAL CITIES

4201 BCC

4411

4521

SINCE 1902

RUSSELL & STOLL COMPANY, INC.

Precision-Built Electrical Equipment

125 BARCLAY STREET, NEW YORK 7, N. Y.

ger of the company's credit and collection department.

J. C. Borden has been appointed comptroller. Mr. Borden has for several years been active on special company assignments and was manager of the contract termination division of the company.

B. M. Horter, who was purchasing agent for the Milwaukee factory, is now director of Purchases. Rex Davies has been appointed manager, credit and collection department. Mr. Davies was director of priorities for the company during the war and has been on special assignments for the company since then.

H. F. Vogt, who has resigned as vice president and treasurer, continues as chairman of the executive committee comprising Mr. Vogt, F. R. Bacon, chairman of the board, and G. S. Crane, president of the company.

According to Mr. Crane, the changes are in line with the company's plans for the expansion of its many diversified products.

No More Uncertain Prices Wiremold Co. Announces

HARTFORD, CONN.—The Wiremold Company of this city recently notified its distributors that deliveries of Wiremold raceway and fittings will no longer be billed at prices in effect at the time of shipment.

The company's net price list No. 34 has been put in effect to replace a previous, temporary policy of billing at prices in effect at the time of shipment.

In his letter to the distributors, D. H. Murphy, president of the company, said: "Your compliance with our request has enabled us to carry on during the recent period of abysmal uncertainty. We say "recent" because we sincerely hope and really believe that we are seeing the dawn of something that begins to look more like normal business conditions."

Noma Electric Appoints Four Vice Presidents

NEW YORK—Henri Sadacca, president of Noma Electric Corporation, recently announced the appointment of four new vice presidents of the firm, Walter E. Fleischaker, Bernard E. Fleischaker, David Kahn and Joseph Kallus.

The Messrs. Fleischaker were owners of Fleischaker & Baum, Inc., manufacturers of EFFanBEE dolls, which business was absorbed by Noma last year.

Mr. Kahn was formerly president of

the Estate Stove Company, which was also absorbed by Noma last year.

Mr. Kallus was formerly owner of The Cameo Doll Products Company, whose products for the past four years have been sold by Noma.

ALBERT O. GROTENHUIS was recently appointed district merchandiser by Moe Brothers Manufacturing Company, Fort Atkinson, Wis., to cover the states of Wisconsin, Illinois, Indiana, Ohio and Michigan. His headquarters will be in Chicago. He was formerly associated with the A. C. Nielsen Co. of Chicago, well known market research organization.

West Coast Wholesaler Opens New Branch House

BAKERSFIELD, CALIF. — Midway Electric Supply Company, with headquarters in Taft, California, is now operating a branch in Bakersfield, Calif., under the management of C. L. Whitney. The Midway Electric Supply Co. was established in 1944 and is owned by C. E. Triplett. M. E. Calhoun is store manager at the main house in Taft.

The company maintains a sales force of one outside salesman and two counter men at Taft and two outside salesmen and one counter man at Bakersfield.

Midway Electric covers the southern San Joaquin valley.

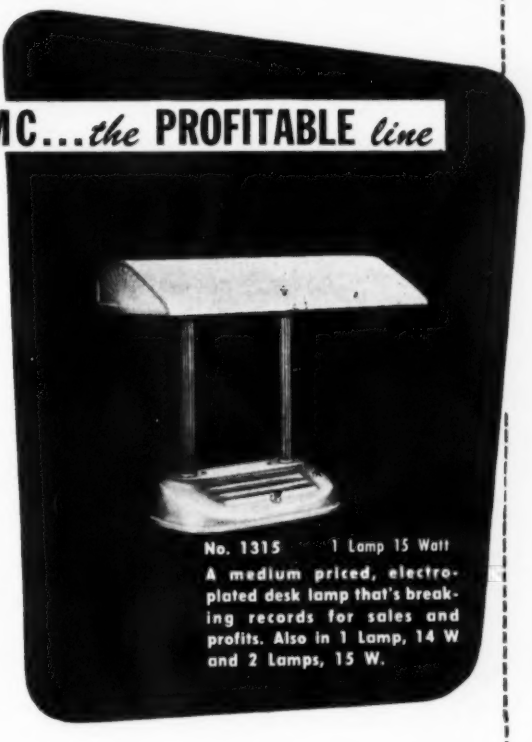
General Mills Electric Iron Available In N. Y.

The General Mills Tru-Heat electric iron is now available in New York retail stores, it was announced recently by James B. Moore, Jr., district sales manager. The iron is the first in a new line

SPECIFY Rmc NO-GLARE *the* PROFITABLE *line*

Yes . . . when you specify ***Rmc*** desk lamps, kitchen fixtures and bed-lamps . . . you specify fast-moving, profit-making merchandise. Because ***Rmc*** fluorescent lighting is designed for mass appeal . . . because ***Rmc*** products have gained high consumer acceptance . . . because ***Rmc*** products are all guaranteed for satisfaction. You can't go wrong with ***Rmc*** . . . the guaranteed, the profitable line of portable fluorescent lighting.

SPECIFY RMC...*the* PROFITABLE *line*



No. 1315 1 Lamp 15 Watt
A medium priced, electroplated desk lamp that's breaking records for sales and profits. Also in 1 Lamp, 14 W and 2 Lamps, 15 W.

AVAILABLE ONLY THRU RECOGNIZED JOBBERS
SEND FOR DESCRIPTIVE CATALOG SHEETS TODAY!

AMERICA'S LARGEST MANUFACTURER OF PORTABLE FLUORESCENT LIGHTING . . . PROMOTIONALLY PRICED FOR EVERY PURSE!

RICHTER
METALCRAFT CORP.
160 E. FIRST STREET • MT. VERNON, N. Y.

SOLDERLESS—TAPELESS
Wire Connectors
SOLAR
SCRU-ITS
"MR. SCRU-IT" (Trade Mark)

Solar SCRU-ITS are used for connecting two or more wires without tape, solder, flame or tools. They are economical and easy to use—wire ends are stripped and SCRU-ITS screw right on to form a compact and efficient joint.

SCRU-ITS give better mechanical and electrical contact . . . eliminate possibilities of shorts, grounding and corrosion. Their compact size permits their use where working space is at a minimum.

Available in several sizes for connecting various combinations of wires.

EASY TO USE:

1. STRIP WIRE

2. SCREW IT

3. THAT'S IT with SCRU-ITS!

DON'T TAPE
DON'T SOLDER
"SCRU-IT"!

• MADE IN FOUR SIZES
• MAY BE USED WITH SOLID OR STRANDED WIRES

MILLIONS IN USE • HUNDREDS OF APPLICATIONS

"Roughing-in" or permanent wiring is simplified with SCRU-ITS . . . they thread on with a twist of the wrist . . . and the joint is complete!

- Fixtures
- Outlet Boxes
- Fuse Boxes
- Panel Boards
- Switch Boxes
- Lighting Devices
- Conduit Boxes
- Circuit Breakers
- Switch Controls
- Motor Connections

and many others.

U. S. PATENT NO. 1,933,555

Write for Data Sheet B-3

For complete specifications on SCRU-IT sizes, uses, prices, etc., WRITE TODAY.

SOLAR ELECTRIC CORPORATION
FACTORY and SALES OFFICES
WARREN, PENNSYLVANIA

of home appliances being introduced by General Mills.

Streamlined merchandising and distribution methods are being used in bringing the new General Mills line of appliances to homemakers, according to Mr. Moore. The products will be sold through all types of retail stores selling home appliances. There will be no exclusive franchises, he said, and any retail store may purchase the iron for resale, using established electrical appliance and hardware distributors as the source.

Jefferson Electric Gets New Plant From WAA

In a move to facilitate production and delivery of its wide line of transformers, ballasts and fuses, the Jefferson Electric Company recently purchased the modern plant at Fall River, Massachusetts, used during the war by the Submarine Signal Corporation. This new addition was obtained from the War Assets Administration and has a floor area of approximately 250,000 square feet. When in full operation the plant will employ more than 1200 workers.

E. J. Bennan, manager of the new plant, said: "We anticipate the start of manufacture early in February with volume production by the middle of May."

Essex Wire Corporation Gets Big Insurance Loan

FORT WAYNE, IND.,—Essex Wire Corporation, an industry in this city that has heretofore been comparatively unknown in financial circles because its stock has been closely held, has secured a long term ($7,000,000) 3½ percent loan from the Metropolitan Life Insurance Company.

The financing was arranged with the assistance of C.I.T. Financial Corporation and Lehman Brothers, New York bankers. Proceeds of the loan will be used as additional working capital and for retirement of short-term bank loans.

S. H. Harrison Named Pacific Coast Manager

S. H. Harrison has been appointed Pacific Coast manager of the industrial division of Western Electric & Manufacturing Co., with headquarters in San Francisco.

RAY A. SIEDLE was recently appointed representative for the northern New York State territory for Curtis Lighting, Inc. Mr. Siedle returns to Curtis Lighting after an absence of about ten years. He was formerly associated with Russell F. Clark, Curtis representative in Pittsburgh.

Intermountain Electrical Assn. Elects Wholesaler

John Longden, intermountain regional manager for Westinghouse Electric Supply Co., was recently elected president of the Intermountain Electrical Association, succeeding O. R. Bigelow.

E. T. Day of the U. S. Rubber Company was named vice president and J. F. McAllister, Utah Power & Light Co., was reelected secretary-treasurer. Arthur J. Reynolds will continue as manager.

New York Subway Cars To Get Fluorescent Lamps

NEW YORK—Robert H. Bishop, vice president in charge of sales, Sylvania Electric Products Inc. recently announced that the company had been awarded a contract to provide fluorescent lamps and auxiliary operating equipment for 400 new subway cars for New York City. The equipment will be sold directly to the American Car and Foundry Company, which will build the new cars for the Board of Transportation, City of New York.

A specially developed cold cathode fluorescent lamp will be used in order to double the amount of light in the present subway cars and at the same time provide a softer, more comfortable illumination, according to Mr. Bishop.

Destination signs also will be illuminated by cold cathode fluorescent lamps, but concealed, and of green color.

Slater

"LIFETIME" WIRING DEVICES

ROTARY SNAP SWITCH

3 Amp — 125 Volts 1 Amp — 250 Volts
⅛" IPS x 5/16" Shank — Single Hole Mounting
6" Leads — One Knurled Nut
Brass or Nickel Finish
Catalog No. 100 Rotary Snap Switch
Std. Pkg. 200 — Pkg. Wt. 6 lbs.
Bulk Packing 500-1000 Optional

No. 100 SPST

This is the famous Slater "Lifetime" Switch. Our tests are discontinued after 30,000 on-off cycles.

Listed by UNDERWRITERS' LABORATORIES, INC.

BAKELITE LAMPHOLDER—3 PIECE

Body and Interior — 1 Piece — ⅛" Cap
Metal Interlocking Ring
250 Watts — 250 Volts
Finish: Black — Metal Parts: Polished Nickel

	Std. Pkg.	Pkg. Wt.
Catalog Nos. 200, Black Bakelite	200	24 lbs.
Catalog Nos. 200-1, Ivory Bakelite	200	24 lbs.

Listed by
UNDERWRITERS' LABORATORIES, INC.

Slater Products are Distributed and Sold Through the Electrical Wholesaler

Slater ELECTRIC & MANUFACTURING CO., Inc.
56th STREET & 37th AVENUE
WOODSIDE, N. Y.

..tagged for the big jobs!

HEXACON ELECTRIC SOLDERING IRONS

Western Electric

STROMBERG CARLSON

Bendix

MINNEAPOLIS HONEYWELL

Westinghouse

TYPE P-150
This production iron provides a large reserve of heat at the right temperature for sustained production.

Important news to WHOLESALERS

HEXACON soldering irons are a profitable line for the distributor, dealer and user because it represents one of the most complete lines available today. It is backed by famous users throughout the world, and an aggressive hard-hitting sales promotion campaign is telling the story to a quarter of a million key men in industry each month.

Remember HEXACON for the complete line — sizes ranging from 40 to 700 watts, with tip diameters from ⅛" to 1¾". All are designed for long life and rapid, economical production.

HEXACON ELECTRIC CO.
146 W. CLAY AVENUE, ROSELLE PARK, N. J.

HEXACON
HIGH-QUALITY, LONG-LASTING SOLDERING IRONS

Wheeler Reflector Co. Appoints Sales Manager

BOSTON—H. A. Barnes, vice president of the Wheeler Reflector Company, Boston, Mass., recently announced that Lynn W. Ferguson has been appointed sales manager of the company effective March 1, 1947.

Mr. Ferguson first became associated with Wheeler in 1930 as its Canadian representative, and in 1931 was appointed general manager of the newly formed Wheeler Reflector Company of Canada, Ltd.

During the war he was active as a member of the Canadian War Production Board in Washington.

Three New Appointments Announced by Operadio

Operadio Manufacturing Company recently announced the appointment of Arch Samuelson as sales manager of its Commercial Sound Division. Mr. Samuelson has been associated with Operadio for several years as Mid-West district manager.

J. F. McCraigh, formerly chief of the company's engineering department, has returned from an extended leave of absence to take the post of West Coast district manager. Fred H. O'Kelley of Atlanta, Georgia, has been appointed Southeastern district manager. Mr. O'Kelley will devote his time to assisting distributors and jobber salesmen.

Assorted V-Belts Offered To Aid Merchandising

AKRON, OHIO—The B. F. Goodrich Co. of this city recently introduced a new merchandising aid in the form of an assortment of its light duty V-belts, as well as several assortments of the light duty machined steel sheaves used with them.

The line includes light duty V-belts and sheaves, as used on electric refrigerators and washing machines, a variety of farm equipment, power mowers, air conditioning units and light machine tools and many types of pumps, the company said.

The belt assortment consists of 44 belts in 39 sizes, with two in each of the five most widely used sizes. They range from 28 to 62 inches in outside circumference, or length, with top widths or cross-sections of 13/32, 17/32 and 11/16 inches.

Merchandising aids offered along with the belt assortment include a metal rack, display cards, guide books and a V-belt measuring stick.

THE COMBINATION big bin merchandiser, X-302, is described as a "complete lamp department in one package" by Herbert E. Pishker, manager of lamp advertising and sales promotion for the Westinghouse Electric Corporation Lamp Division, Bloomfield N. J. It is intended for hardware stores, portable lamp departments in electric appliance stores and for grocery stores which stock both fluorescent and incandescent lamps.

New Field Engineers Appointed by Bulldog

Earl S. Guild, former plant engineer at Ranger Aircraft Engines, Farmingdale, Long Island, recently joined the Bulldog Electric Products Co., Detroit, Mich., as field engineer. Mr. Guild has been assigned to the Washington, D. C., offices under M. C. Nelson.

At the same time the company announced that Bert S. Wardell had joined the Nashville, Tenn., office as field engineer under District Manager E. R. Boruch, and will make his headquarters in Birmingham, Ala.

Both men have had many years of experience in important engineering and industrial sales positions, the company said.

Premier Vacuum Releases New Sales Training Film

CLEVELAND—"How to Drive a Woman Crazy" is the intriguing title of a new sales training film produced by the Premier Vacuum Cleaner Division, General Electric Company. The sound-slide film is being made available to Premier distributors and dealers as a major item in Premier's sales training program.

The film presents a highly effective and entertaining way for Premier salesmen to sit in on a successful sale of Premier cleaners through a typical in-the-store demonstration.

ROYAL

LEADS

ROYAL ELECTRIC CO., INC., PAWTUCKET, R. I.

with *COLOVOLT

COLD CATHODE • LOW VOLTAGE LIGHTING

For greater customer satisfaction.

Lower maintenance cost—longer maintenance of a given foot-candle level—greater dependability because of guarantee (One year of light guaranteed except for failure due to breakage)—instantaneous starting—no flickering—continuous line lighting. These extra advantages are available to commercial and industrial users of light when installations are made with COLOVOLT Cold Cathode, Low Voltage Fluorescent Lamps and Fixtures.

Write for illustrated material and technical data.

*Trade Mark Registered U. S. Patent Office

GENERAL LUMINESCENT CORPORATION
648 S. FEDERAL STREET CHICAGO 5, ILLINOIS

NOTICE TO THE TRADE

The following U. S. patents have been issued to me for illuminating Bubbling devices:

Re. 22,289	granted March 16, 1943
2,353,063	granted July 4, 1944
2,383,941	granted Sept. 4, 1945

An exclusive license under these patents has been granted to the Noma Electric Corporation which is the only company authorized to make bubble lights under these patents.

All infringers will be vigorously prosecuted.

(Signed) **CARL W. OTIS**
Peru, Indiana

New Secretary Elected For Quadrangle Mfg. Co.

The Quadrangle Manufacturing Company, Chicago, Ill., recently announced the election of J. R. Gallaher as secretary of the Corporation and office manager to succeed Miss E. Laymon, who retired the first of this year.

Mr. Gallaher has been associated with Quadrangle since 1938. In 1942 he entered the Army, where he served at various Canadian and Alaskan bases. He was discharged and returned to Quadrangle in 1945.

THIS AND THAT

Sales Tip of the Month

A friend of ours objects to taking his son to his doctor's where he has to sit in a waiting room with "Two people with colds, one bad cough and two or three suspicious throats." Our friend wants to know why somebody doesn't suggest to the doctor that he have bactericidal lamps installed in his office and waiting room.

"Silver" Election for Jack North

Jack North, president of the Electrical League of Cleveland, general sales manager of the Cleveland Electric Illuminating Co., and "father of electrical leagues" has been reelected for his twenty-fifth successive term as president of the Cleveland League.

950,000 Homes in 1947

The Bureau of Labor Statistics of the U. S. Dept. of Labor recently reported that 58,000 new homes were completed by December, 1946. The Bureau said that 1947 production of completed homes may reach 950,000.

Liner Has 30,000 Lamps

The electric plant of the Queen Elizabeth, largest ship ever built, packs enough power to meet the demands of a city of 150,000. Among the luxury liner's electric accessories are 650 motors, 30,000 lamps and 4,000 miles of wiring. The electric motors perform a multitude of tasks, including the raising and lowering of 16-ton anchors and the manipulation of a 140-ton rudder.

Copper Too High

If the government does not eliminate the 4-cent duty on foreign copper very soon, the electrical industry will experience a period similar to that of last June when copper just was not obtainable. Copper consumers claim that they cannot afford to buy foreign copper with the 4-cent import duty added to the price. So far, the Office of Metal Reserve has been able to make allocations to domestic users but OMR has advised that its March allocations will run short.

Meetings

National Adequate Wiring Bureau held its annual adequate wiring forum at the Hotel Stevens, Chicago, February 27-28.

National Electrical Manufacturers Association held its spring meeting at the Edgewater Beach Hotel, Chicago, March 3-5.

The Canadian Electrical Association—Western Conference held a meeting at the Hotel Vancouver, Vancouver, B. C., March 3-5.

The National Convention of the Institute of Radio Engineers was held at the Hotel Commodore, New York, March 3-6.

Radio Engineering Show, Grand Central Palace, New York, March 3-6.

Rural Electrical Contractors Association holds its annual convention at the Hotel Roosevelt, New Orleans, March 13-15.

National Electrical Wholesalers Association, 38th Annual Convention, Atlantic City, N. J., May 4-8.

NOTE: Wherever you travel, get your train reservation *early* and make sure you'll have a place to sleep when you get there.

OBITUARIES

G. E. Mason

George E. Mason, 54, sales manager, McKinley - Mockenhaupt Co., Chicago, Ill., died January 13, 1947, after a prolonged illness.

Mr. Mason, who was a resident of Chicago all his life, was associated with the electrical industry for over 35 years. He was with the Central Electric Co. and the Illinois Electric Co. for many years. Later he joined the Johns Pratt Company. In

KLEINS
FOR MEN WHO
WANT THE BEST
Every good workman appreciates high quality in the tools and equipment he uses. To a lineman, however, this regard for quality is more than admiration for fine craftsmanship. The lineman daily trusts his very life to his safety strap, belt and climbers—and under such conditions high quality is more than a matter of pride.
Good workmen know that there's no substitute for experience. It is the years of expert craftsmanship back of every piece of Klein equipment that make Klein belts and safety straps—Klein climbers and grips—Klein pliers and wrenches the first choice of linemen today as they have been "since 1857."
Since 1857
This book on the care and safe use of tools will be sent on request.
TOOLS
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Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
3200 BELMONT AVENUE, CHICAGO

QUAD LIGHTING UNITS

LIGHTING UNITS for SERVICE STATIONS

FLOODLIGHTS FOR AREA LIGHTING

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ANGLE REFLECTORS FOR THE SIGNS

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We can supply any unit your customers require

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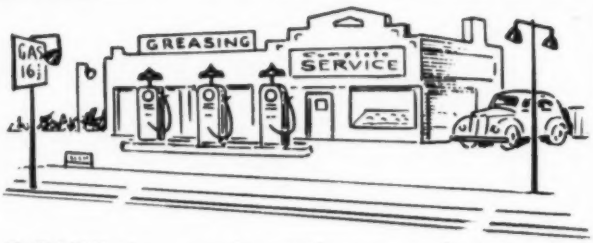
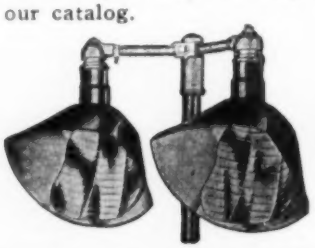
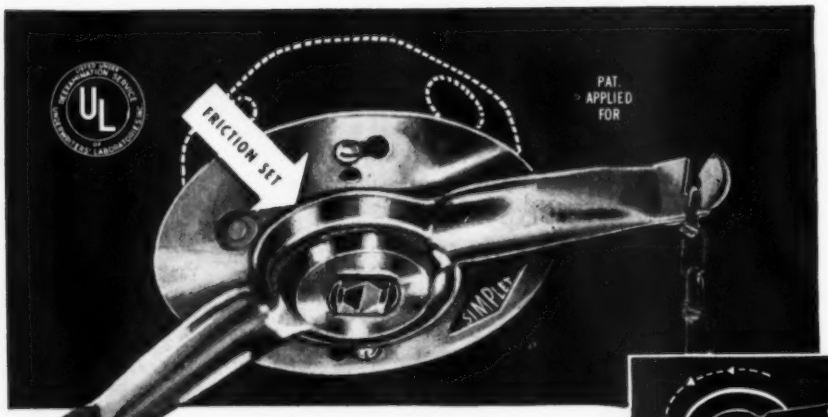


MAKE those service stations not only attractive, but scientifically illuminated with QUAD UNITS. Our most complete line gives you the right types of lighting units regardless of station layout. So that you may be fully informed send now for our catalog.

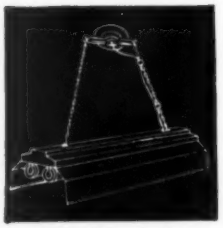


QUADRANGLE MFG. CO.

32 S. PEORIA ST. CHICAGO 7, ILL.



360° Adjustment



For any fixture position

NEW "Friction-Set" FIXTURE HANGER . . .

That Adjust With a Twist of the Wrist!

At last you can get a Fixture Hanger that turns to any angle after being screwed to an outlet box. Although base and receptacle remain stationary, hanger arms may be turned to align with any preconceived lighting plan. Exclusive Friction Ring firmly holds fixture in selected position. Hanger screws on to 3¼" or 4" outlet boxes, no other fastening necessary. Furnished complete with receptacle, two 5' chains, hooks and cord clips.

Friction-Set K100 . . . List Price $1.10

Write For Bulletin K25

SIMPLET ELECTRIC COMPANY

123 N. Sangamon Street • Chicago 7, Illinois

112 Charlton Street • New York 14, N.Y.

1922 he went with the electrical division of Colt Fire Arms Co.

In 1944 Mr. Mason joined McKinley-Mockenhaupt Company and at the time of his death was sales manager for that organization.

He is survived by his wife, Irene Mason and two daughters, 16 and 11 years of age.

ASSOCIATION NEWS

BALTIMORE—At the regular meeting the Electrical Manufacturers Representatives, Frank C. Butts was elected president of the association for 1947. Frank W. Lemly was elected vice president; Donald Parker, secretary; and C. E. Esposite, treasurer.

The new Executive Committee consists of Fred A. Leser, chairman; Samuel Masland, and Murray C. Nelson.

NEW ORLEANS—The Electrical Association of New Orleans commemorated the 100th anniversary of Edison's birth by holding a dinner meet-

PROFITABLE Opportunities for you with AUTOMATIC TIME CLOCKS

Window Lights . . . Electric and Gaseous Tube Signs . . . Apartment and Hotel Hall Lights . . . Billboards . . . Flood Lighting . . . Poultry House Lighting . . . Linotype Machines . . . Pumps and Motors . . . Electric Refrigerator Defrosting . . . Time Lock Safes and Vaults . . . Street Lighting Systems . . . Traffic Signals . . . Signal and Alarm Systems . . . Appliance Outlets . . . Water Softening Equipment . . . Advertising Displays . . . Ventilating Systems . . . Attic and Exhaust Fans . . . Electric Fountains . . . Air Conditioning Equipment . . . Electric Hot Water Heaters . . . Compressors . . . Oil Well Pumps . . . Battery Charging . . . Sprinkling Systems . . . Airport Lighting . . . Church Bulletin Boards . . . Dioramas . . . Coal Stokers . . . Time Signals . . . Chemiculture . . . Paint Agitators . . . Blowers . . . Yard Lighting Systems . . . Bulletin Boards . . . Heat Treating . . . Panoramas . . . Conveyors . . . Suburban Railway Station Platforms . . . Chime Systems . . . Electric Cookers . . . Factory Lighting . . . Electric Glue Pots . . . Park and Playground Lights . . . Gas and Oil Heating Equipment . . . Plastic Molding . . . Solenoid Valves . . . Greenhouse Lights.

Write for Information and Discounts

AUTOMATIC Electric Manufacturing Co.

TIME SWITCHES—FLASHERS

MANKATO • MINNESOTA

ing on February 21 in the ballroom of the Roosevelt Hotel. The principal address was made by Honorable Charles Edison. Mr. Edison was introduced by Mayor de Lesseps S. Morrison. Special features of the evening included music, tableaux of light and a radio broadcast. A table was reserved for the "Pioneers of the Electrical Industry" who as a group were honor guests of the meeting.

CHICAGO—On January 10 at a meeting of the Board of Directors of the Electric Association, Mr. Felix Van Cleef was elected to the office of the president for the 1947 term. Mr. Van Cleef has been a member of the Board of Directors since January 1945 and his election to the presidency is a tribute to his standing in the industry as "a business man and organizer," to quote Mr. W. O. Batchelder of the General Electric Company who placed him in nomination. Mr. Van Cleef is a member of the firm of Van Cleef Bros., Inc., Chicago, manufacturers of the Dutch Brand friction and rubber insulating tapes and many other rubber and

Dependable and Complete
Soldering Equipment.

Write Today for Complete Information on the Esico Line

Here is a line covering everything needed for the modern plant which calls for Electric Soldering Equipment.

Factories clamor for it, when once called to their attention, for it's a FAST-MOVING LINE.

Dependably, substantially built, securing customer good-will, and resales.

Includes Electric Soldering Irons listing from $5 to $12.25; Soldering Machines $7.50 to $15; Soldering Iron Temperature Control Stands, and other related specialties.

Our products are generally sold by the wholesalers direct to the industrials. Write for catalogs, price lists and Wholesalers' and Retail Discounts.

SOLDER POTS
ruggedly constructed pots of various sizes designed for continuous operation and so constructed that they are easily and quickly serviced, should elements have to be replaced.

ESICO SPOT SOLDERING MACHINE

A real time-saver. Treadle-operated. Automatically advances iron and solder, leaves operator's hands free for work.

ESICO SOLDERING IRON CONTROLS

Positive TIP control prevents overheating—tip cannot fall below soldering temperature. The only practical method of controlling heat in the tip—an exclusive ESICO feature!

ESICO ★Reg. U.S. Pat. Off.

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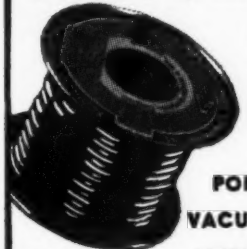
SOLDERING IRON CO., INC.
3047 W. Elm St. Deep River, Conn.

CORWICO

the *Service* line
of CORDS and CORD SETS
specified by top manufacturers of



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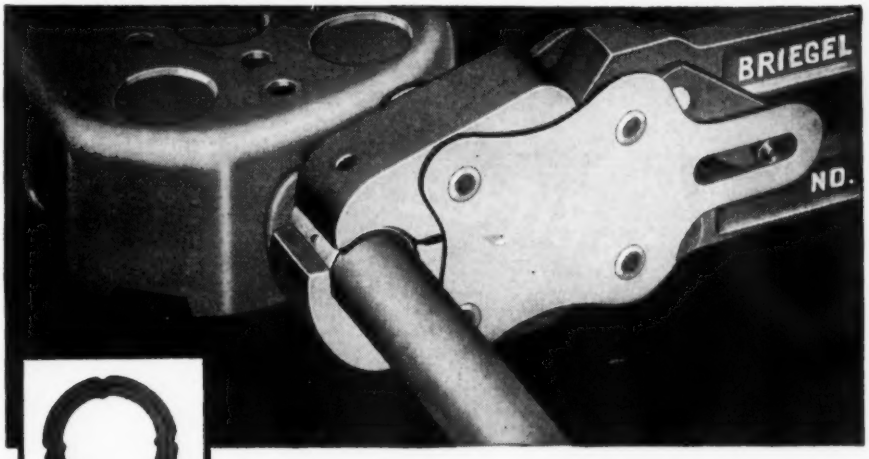
A full line of Flexible Cords for the repair and service industry, obtainable through jobbers and distributors.

CORNISH WIRE CO., INC.
15 Park Row • New York City, 7



Cross section Showing Indentations.

E·M·T·UP THE QUICK WAY
Two Squeezes and it's Set

TWO QUICK SQUEEZES give you Finer, Faster Conduit Connections. B-M Fittings do away with the twisting, turning and tightening of nuts and save you valuable time and materials. Then too, they are stronger, neater and much easier to work with in tight places. Start using B-M Fittings today. Have more satisfied customers—more profits from each job!

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The M. B. Austin Co., Chicago, Ill.
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ARCHIE SAYS:

Our ADVERTISING helps you SELL PIERCE *Balanced Lag* Renewable Fuses

● Most fuses, so far as the covers go, look much alike. But there's a vast difference *inside* the Pierce Fuse. And that's what Pierce advertising is telling thousands of fuse purchasers.

Periodicals covering electrical men, architects, industrial maintenance men, engineers of hotels, hospitals and public buildings—a total circulation of more than 300,000—carry Pierce advertising. They are doing a job for you—telling about:

(1) *Pierce Balanced Lag Link* which does not blow unnecessarily in the low working range but can be depended upon to blow immediately when grounds or shorts endanger equipment.

(2) *Screen Ventilation* which makes dangerous and costly afterblow impossible.

(3) The Pierce Arch-Bridge Construction, which holds the blades in perfect alignment independent of the cover, providing longer life.

(4) Only a few seconds and a screw driver needed to change links.

PROFIT FROM OUR FREE LINK OFFER

All our Pierce Fuse advertising to architects, plant engineers, and maintenance men offers a FREE Link. Be sure to carry Pierce Fuse samples and price sheets, be ready to answer questions.

PIERCE RENEWABLE FUSES, INC.

Dept. K4, 211 HERTEL AVENUE, Buffalo 7, N. Y.

Felix Van Cleef

chemical products for a variety of trades.

By reason of his many close contacts he is very well known throughout the electrical industry in this area and because of his wide travels he is also favorably regarded among those interested in the promotion of the electrical industry throughout the country.

the BIT that has the BITE!
The BIT on every VACO
is scientifically designed... treated in just the right way to insure a firm "bite" and dependable service on jobs where the right kind of screw driver means the difference between first-class and second-rate production. Vaco handles are made of gleaming Amberyl plastic—shock-proof and break-proof.
You will find, in the VACO line, a size and style of screw driver for all your needs
Write for catalog.
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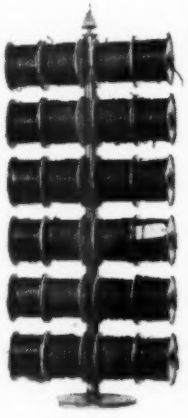
THERE ARE 173 TYPES OF VACO SCREW DRIVERS

PERFECT-LINE

WIRE REEL STAND



Cat. No. WR106

Serves as both dispenser and display racks for a variety of types and sizes of wire. Can be installed on table or counter. 45 inches high, 21 inches wide. Total Capacity—24 reels. WRITE FOR COMPLETE CATALOG AND PRICE SHEETS.

Outlet Cover, deep and shallow—5" diam., White, Ivory, Brass.

PERFECT-LINE

Manufacturing Corporation

HICKSVILLE, L. I., N. Y.

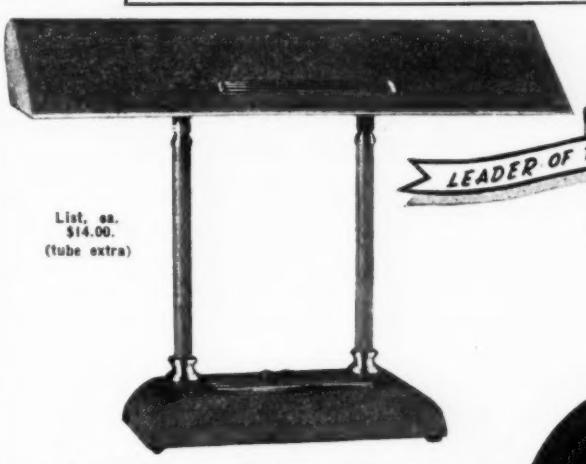
Recently the Electrical Maintenance Engineers of Chicago held the second monthly meeting of the 1945-47 series in the Builders Club. The speaker, Willard M. Woll, assistant supervisor, sales promotion, Commonwealth Edison Company, spoke on the subject of "High Frequency Heating." Mr. Woll used slides to illustrate the progress made recently in many diverse applications of high frequency current. He also showed examples of many new types of equipment, both permanent setups and portable equipment which can be carried to a job.

Women's Division

"Building and Fighting the Burma Road" was the subject of a most interesting and enlightening talk by Colonel R. A. Hirschfield at the January 21 meeting of the Women's Division. Colonel Hirschfield, an engineer for Commonwealth Edison Co. for 17 years, mobilized with the 108th Engineers of Chicago in March, 1941, going overseas in March, 1942. He brought to the members an authentic description of one of the most thrilling and effective operations of the war.

Mrs. Agnes Cornell Hunter, member of the firm, Boaler-Burchell & Dillon, Inc., Interior Decorators, whose subject was "What is a Decorator?"

DESK LAMP
FLUORESCENT



List, ea. $14.00. (tube extra)

VAN DYKE "LIGHTS THE WAY"

An outstanding fluorescent value—the new VAN DYKE Fluorescent Desk Lamp . . . all metal with solid bronze appointments and pen rest—adjustable shade designed to give maximum light—attractive enough for the executive's desk and economical enough for student or clerk—let us send you catalog covering our complete line.

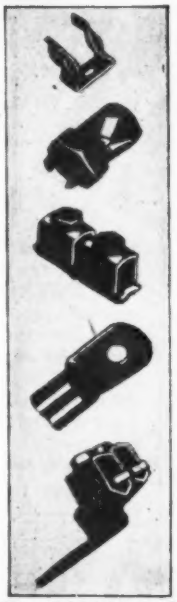
It's New
It's Fluorescent
It's Van Dyke

VAN DYKE INDUSTRIES
21ST AND ROCKWELL STS. CHICAGO 8, ILLINOIS, U.S.A.

ILSCO OPERATES ITS OWN TUBE MILL

ILSCO
LUGS AND CONNECTORS

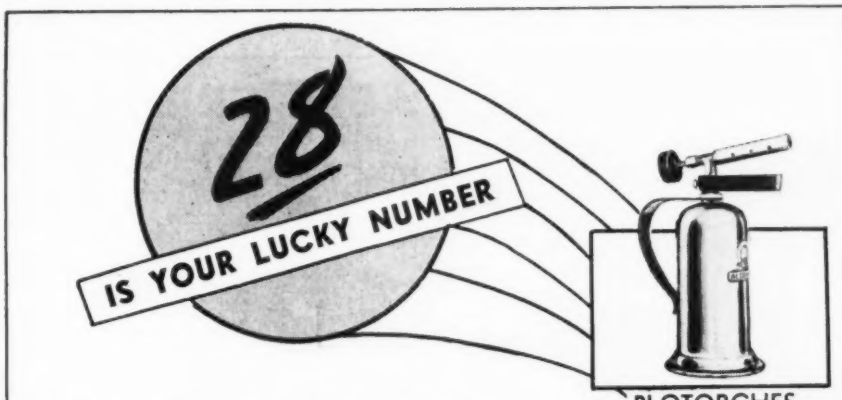
Simplicity
IN DESIGN AND CONSTRUCTION



FEWER parts, more skillful engineering design and construction, easy, swift installation . . . and copper 99.99% pure . . . 100% conductive . . . just a few reasons why you should "go Ilsco for '47."

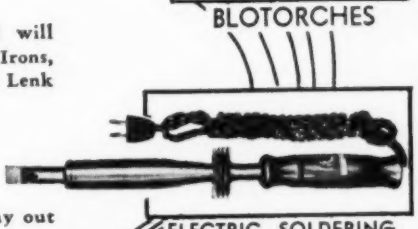
Write for 48-page illustrated catalog.

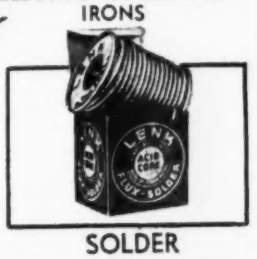
ILSCO COPPER TUBE & PRODUCTS, Inc.
CINCINNATI, OHIO



That's the number of years of good will built into the Lenk line of Soldering Irons, Solder and Blotorches. For *28* years the Lenk line has ranked *first* with men who demand reliable soldering equipment.

Imitators come and go, but quality has given Lenk the selling power to stay out front. Feature and display the entire Lenk line for extra sales and profits.





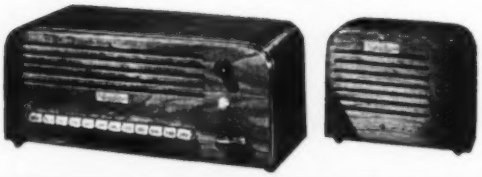
THE Lenk MFG. COMPANY
Dept. H, Newton Lower Falls 62, Mass.
Manufacturers of Soldering Equipment Since 1919

Talk-A-Phone Jobbers Are Spotlighted

IN TALK-A-PHONE DEALER ADS

Consider what Talk-A-Phone's policy of marketing through the jobber means to you. *You* are prominently spotlighted in Talk-A-Phone ads appearing regularly in leading dealer publications. Thousands of prospects are urged to "See Your Jobber" . . . *you.*

You are the only source of outlet to the dealer. The immense Talk-A-Phone dealer market is *yours* exclusively.



Investigate. Write for catalog and tested sales plans that will make your inter-communication business pay off in a big way. Address Dept. I A.

Talk-A-Phone Co.
1512 S. Pulaski Road Chicago 23, Ill.

explained the professional and merchandising phases of interior decoration and how both can prove of great value to the client.

MINNEAPOLIS — The North Central Electrical Industries announced that the Hon. Josephus Daniels, former Secretary of the Navy and Ambassador to Mexico, was guest speaker at the Edison Centennial Dinner sponsored by the Minneapolis Chamber of Commerce at the Calhoun Beach Club, Tuesday, February 11. Many leaders in business and industry throughout the North Central area were present.

The Edison Centennial Dinner Party planned by the electrical groups in the Twin Cities merged with the Chamber of Commerce Dinner meeting.

New President of Electrical Contractors Assn.

Arthur Ingebredtsen, Electric Repair and Construction Co., was elected president of the Minneapolis Electrical Contractors Association at the annual banquet and election meeting. Dewey Wallin was elected vice president and Louis LaMay will serve as secretary-treasurer.

● A BRAND NEW APPLIANCE ●

ELECTRIC PORTABLE GRIDDLE

20"x10½"x7" ——— Wt. 15 lbs.

POLISHED ALUMINUM SURFACE

THREE HEATS 1200 W. FULL CAPACITY

WITH JEWEL LIGHT INDICATOR

FOODS PREPARED ON THIS GRIDDLE

Hamburgers, Franks, Eggs, Bacon, Pancakes, Steaks, Chops, Fish, French Toast, Wheatcakes, Home Fried Potatoes, Grilled Sandwiches, and many other dishes.

EASILY CLEANED 120 VOLT A.C.

THERMALLY INSULATED — COOL BASE — PROMPT DELIVERY

ASSOCIATED METAL INDUSTRIES
489 FIFTH AVE. NEW YORK, N. Y.

Sell KWIKHEAT Thermostatic Soldering Irons for profits and repeat sales. They give customers solid, satisfying performance and long useful life. Two KWIKHEAT built-in Thermostatic irons, 225-watt and 450-watt...and the low cost KOPPER-KORE 100-watt iron. The Kordless KWIKHEAT speeds up production of delicate work. Write for information on KWIKHEAT'S nation-wide merchandising program. It means real profits to you.

How to start a

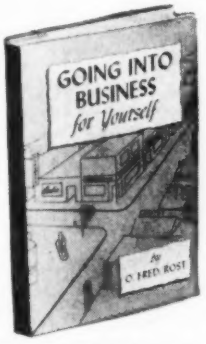
PROFITABLE BUSINESS of your own

and

keep it a going success

What does it take to start your own business, right, so that you can make a go of it?

HERE are the answers—a really informed, authoritative book by a business and marketing consultant of international reputation, outlining for you the things you want to know, the things you have to do, to go into business for yourself with every possible chance for success!



GOING INTO BUSINESS FOR YOURSELF

By O. Fred. Rost, Editor of Electrical Wholesaling. 334 pages, 5½ x 8, 19 illustrations, $3.00

STARTING from scratch by helping you decide the business to which you are best suited, this book guides you step by step through the problems of financing, legal aspects, choosing the location, bank dealings, records insurance, etc., and gives sound, constantly helpful pointers on buying and selling. Finally, it gives actual thumb-nail sketches of performance records in twenty-four types of businesses that have proved to be successful.

American Business says: "Containing more factual information of value than ten ordinary books on this subject this 334 page volume tells more about retailing than any other book we have ever read . . . the book gets down to cases right at the jump-off and from there on every page contains something the man going into business ought to know—and something which only about one in ten does know."

N. Y. Times says: "Many and varied are the items of information in this elemental volume for the person about to go into business for himself."

Chicago Sun says: "The casualties among the new crop of enterprisers would be drastically reduced if each of them could be persuaded to read Rost's timely book before starting out."

Chicago Tribune says: "If you are planning a business of your own this book is your best bet for success."

Canadian Business says: "Seldom have we come across such a useful book for anyone going into business for himself."

SEE IT 10 DAYS FREE • MAIL COUPON

McGraw-Hill Book Co., 330 W. 42nd St., New York 18

Send me Rost's **GOING INTO BUSINESS FOR YOURSELF** for 10 days' examination on approval. In 10 days I will send $3.00 plus few cents postage or return book postpaid. (Postage paid on cash orders.)

Name .....

Address .....

City and State .....

Company .....

Position EWS-3-47

For Canadian price, write: Embassy Book Co., 12 Richmond St. E., Toronto 1.

PHILADELPHIA — The Electrical Association of Philadelphia announces a twofold 1947 Bank tie-in. The first phase of the 1947 plan concentrates upon the all-electric kitchen and the second is directed at the retail commercial field, which includes the thousands of stores, shops, etc., in every neighborhood of the five-county territory served by the Electrical Association. This marks the first time this activity has gone beyond the residential field.

The association's plans in connection with stimulating interest in the all-electric kitchen included the purchase of miniature kitchens from a firm specializing in this field. These kitchens will be put on display on the main floor of the various local banks.

The second phase of the 1947 program directed the cooperative banking activity for the first time to the retail commercial field. A 16-page booklet entitled, "Where Will They Go When They Buy?" was developed by the association. This will be distributed by 33 cooperating banks and trust companies representing Philadelphia and its suburban territory. The Electrical Association will give additional support to this activity by mailing 20,000 booklets to a selected list of retail commercial prospects throughout the five-county territory.

ROCHESTER—At a recent meeting of the Rochester Chapter of the National Electrical Contractors Association Alvin Mueller was elected president to serve during 1947. Earl Driscoll becomes vice president; Herbert Davison, Sr., treasurer; E. J. Kramer, secretary; and Ed Vanderlinde, governor.

Dealer Meeting

George Taubeneck of Detroit addressed the dealer members of the association on the timely and interesting subject of "Frozen Foods Are Here to Stay."

Geneva Section

M. B. Archer, sales manager and treasurer of Archway Inc., Geneva, was elected chairman of the Geneva Division of the association at a recent meeting of that group.

Edison Day

Chester Long, vice president of the General Electric Co., was guest speaker at the Chamber of Commerce on February 11 in observance of Edison Day. His topic was "Edison and Electrical Opportunities."

Members of the Rochester Chapter,

CATALOG #947

NEW CIRCLINE

FLUORESCENT

RESIDENTIAL LIGHTING FIXTURE

For permanent and plug-in installation. General Electric Ballast, Holders and Tubes. Permanent installation units are Underwriters Laboratory Approved.

#947 All Brass decorative for Living Room, Hallway, or Pin-Up.

#948 Baked White Enamel for Kitchen, Bathroom.

Specifications—Both hold 32 watt Florescent, 12-inch diameter, G. E. Lamps, 1,600 Lumens. Shadow proof.

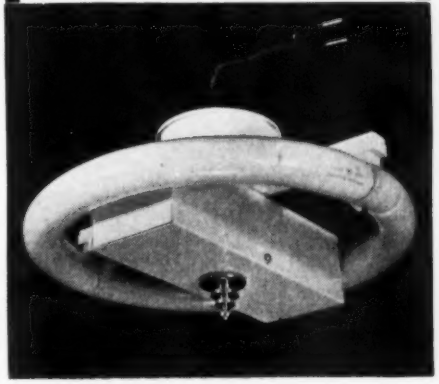
Manufacturer's representatives wanted.

Literature sent upon request.

GENERAL ILLUMINATING, Inc.

505 E. 171st., BRONX, N. Y.

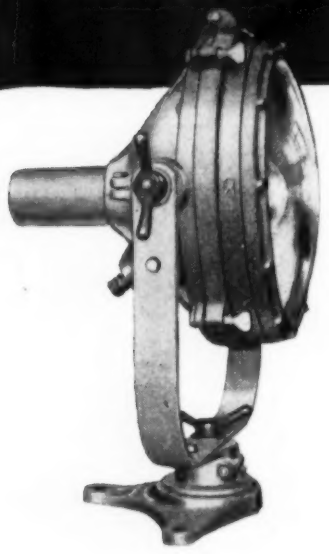
CATALOG #948



DEPENDABLE

Floodlighting

WITH MINIMUM MAINTENANCE



Pyle-National heavy duty floodlight equipment is built to withstand severe operating conditions; to provide the reliable lighting needed for protection, and for outdoor night work. Pyle-National reflector design and light control lenses assure high efficiency lighting with proper distribution for maximum usefulness. The wide range of types and sizes, from 100 watts to 5000 watts, allows individual requirements to be met easily and economically—substantial weatherproof construction with sealed interior gives maximum protection to reflector and lamp bulbs. Interior cleaning and other maintenance is greatly reduced. Write for Catalog 2100 giving full information, with beam efficiency, candlepower, and light distribution data.

1897 • FIFTIETH ANNIVERSARY • 1947

THE PYLE-NATIONAL COMPANY

1352 N. Kostner Avenue, Chicago 51, Illinois

NECA, recently received official notices about the Annual Convention to be held this year in September in San Francisco—Sept. 8th to 11th. A special train will carry the delegates. It will make a circuit of about twelve western states to include such points of interest as the Glacier National Park, Oregon-Washington Coastal Highway, Waterton Lakes, Hollywood, San Diego and Albuquerque.

WASHINGTON, D. C.—The Electric Institute of Washington commemorated the 100th anniversary of Thomas Edison at its 13th Annual Dinner Meeting held at the Hotel Statler on February 11. Those present enjoyed a special broadcast over Station WMAL entitled, "The Spirit of Progress"—a dramatic presentation portraying the life of Edison.

"The Year Ahead in Congress" was presented by the Hon. Clarence J. Brown, Ohio Member of the 80th Congress. His membership on various committees of the House of Representatives enabled him to give first hand information on things to come.

FOR

IMMEDIATE SHIPMENT

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VAPOR PROOF UNITS

now made in Aluminum

No. 2800-2804 No. 2802

- No. 2800 has a cast of aluminum hood tapped for ½" pipe. For 60-100 watt lamp.
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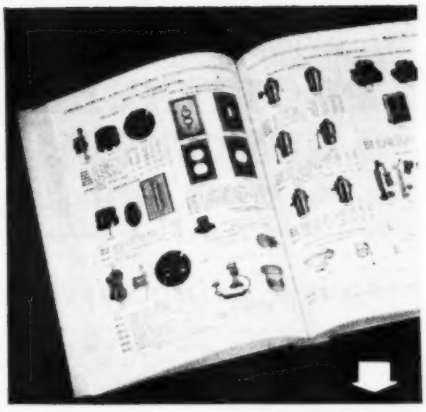

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ELECTRICAL CATALOG DEPARTMENT

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GRAND RAPIDS 2, MICHIGAN

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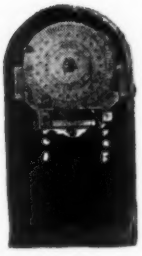
TORK

CLOCKS



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POULTRY LIGHTING CLOCKS: Standard models for automatic Bright-Dim lighting equipment control for poultry houses.

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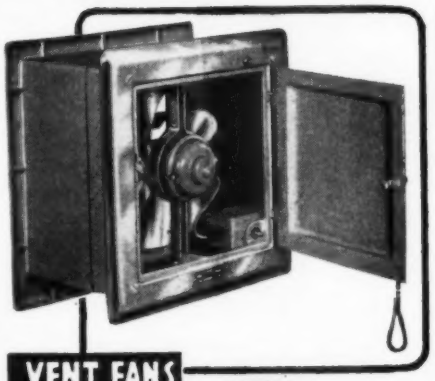

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EXHAUST FANS

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MENOMINEE, MICHIGAN

SIGNAL

MORE FACTS ON PRODUCTS

Electrical Fittings—In a handy, compact 12-page folder The Thomas & Betts Co., Inc., Elizabeth 1, New Jersey, presents detailed descriptions and illustrations of its various types of Lock-Tite pressure connectors.

When writing mention ELECTRICAL WHOLESALING

Electronic Tubes—A 156-page receiving tube brochure with recommended types (ETR-19) for equipment designers and radio set manufacturers, has been published by the Tube Division of General Electric Company's Electronic Department, Schenectady, N. Y. The brochure lists tube types in numerical order by sections and each section includes a typical circuit, complete ratings, curves, and companion technical data for each tube.

When writing mention ELECTRICAL WHOLESALING

Fittings—Catalog C-4 contains engineering data on the series of Fusite terminals manufactured by the Cincinnati Electric Products Co., Carthage at Hannaford Ave., Cincinnati 12, Ohio. The catalog contains facts about Fusite, illustrates with photographs the design and construction of the terminals, including specifications, and features helpful application hints.

When writing mention ELECTRICAL WHOLESALING

Fluorescent and Incandescent Lighting—An 8-page folder illustrates the various types of fluorescent and incandescent fixtures manufactured by Gruber Brothers, Inc., 72-78 Spring St., New York 12, N. Y.

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In Canada: IRVING SMITH LIMITED, Montreal

Fluorescent Fixtures—A twelve-page catalog, No. 52, describes the 1947 line of commercial, industrial and residential fluorescent lighting fixtures as manufactured by Sun-Lite Mfg. Co., 9126 Oakland Ave., Detroit 11, Michigan.

When writing mention ELECTRICAL WHOLESALING

Glow Switch—A folder issued by the Industrial Devices, Inc., of Edgewater, New Jersey, describes the company's electro-glow switch plate that can be used as a pilot light, handi glow, or test light.

When writing mention ELECTRICAL WHOLESALING

Incandescent and Fluorescent Lamps—A 76-page catalog (Bulletin LD-1) has been prepared by General Electric, Nela Park, Cleveland, Ohio. It features the latest lamp developments and their practical applications in the commercial, industrial and residential fields; includes a condensed text on the design and operation of incandescent, mercury and fluorescent light sources; and covers more than 40 lamp topics including lamp economics, temperatures, voltages, auxiliary equipments, bactericidal, infra-red, sun lamps and glow lamps.

When writing mention ELECTRICAL WHOLESALING

Motor Controls—Catalog No. 10 on motor controls, contains factual information on manual starters and manual switches, magnetic starters, push button controls, heating and ventilating system controls, dimensions and knockouts and enclosed switches. Arrow-Hart & Hegeman Electric Co., Hartford 6, Conn.

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BRAZING

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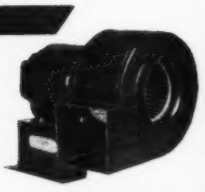

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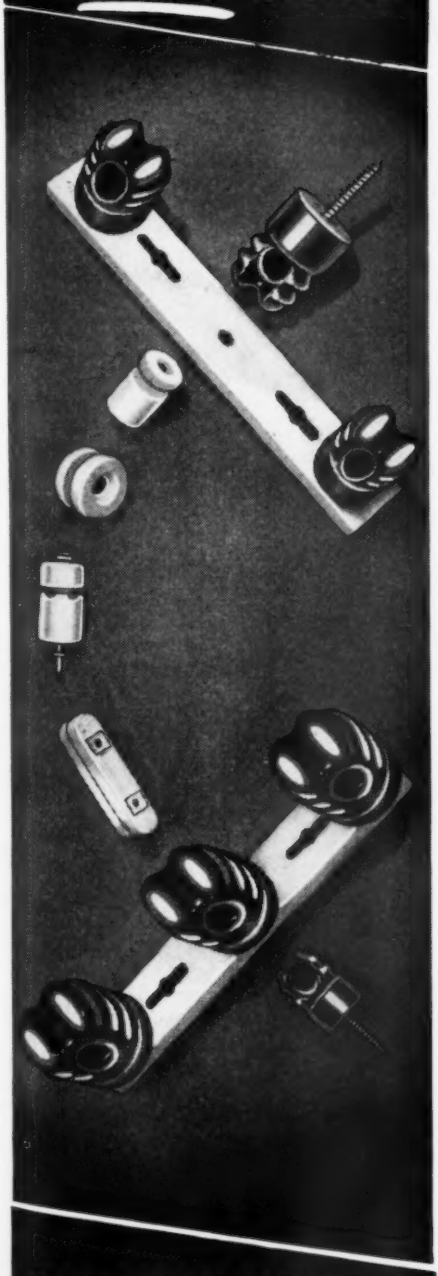

THE U UNIVERSAL

CLAY PRODUCTS CO.

1549 EAST FIRST ST.

SANDUSKY, OHIO

Relays—Small power relays and medium power relays are described and illustrated in a 20-page catalog, No. 6, issued by the Signal Engineering & Mfg. Co., 154 W. 14th St., New York, N. Y. Included in the catalog is information regarding the method of selecting relays, operating characteristics, contact circuit arrangements, and contact ratings.

When writing mention ELECTRICAL WHOLESALING

Tools—A catalog, containing information on wire stripper kits, stripper bench holder, thermo-volt circuit tester 10-volt circuit tester, key wrenches, etc., has been announced by the Wood Specialty Mfg. Co., 919 Taylor Ave., Rockford, Ill.

When writing mention ELECTRICAL WHOLESALING

Ventilating Equipment—A folder has been published by the Schaefer Brass & Mfg. Co., St. Louis, Mo., which describes the company's built-in ventilators adaptable for the home, flat or apartment.

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Manufacturers Representative—established clientele among leading Industrial and Electrical Wholesalers in Western Pennsylvania and West Virginia built up over twenty years' service, can handle an additional established line capable of sales development.

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½", ¾" and 1" sizes

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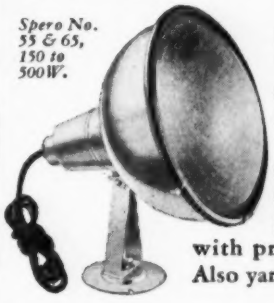
2 FLOODLIGHTS

Spero No. 55 & 65, 150 to 500W.



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3 REFLECTORS

Shallow and dome-type, one-piece seamless construction, keyless or with pull chain. For 25 to 750 W lamps.

Dome type for 60 to 200 W lamps.

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Vertical or 90° angle mounting.

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SYRACUSE 9, N. Y.

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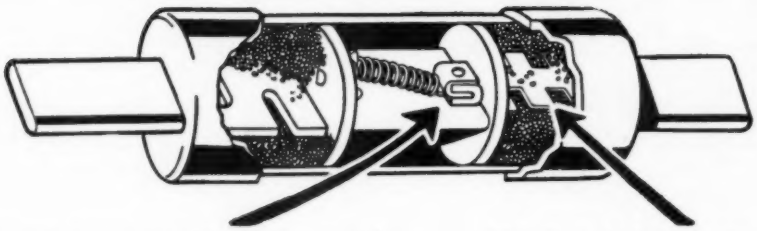

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★ *This Fuse Link gives Fusetron "fuse safety" on short-circuits.*

If "too much business" has any of your fuse users on the spot—

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For example, take Fusetrons—Point out to your customers that they can entirely wipe out all useless shutdowns caused by protective devices opening needlessly on starting currents or other harmless overloads.

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Bussmann Mfg. Co., St. Louis, Mo.
Division McGraw Electric Company

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